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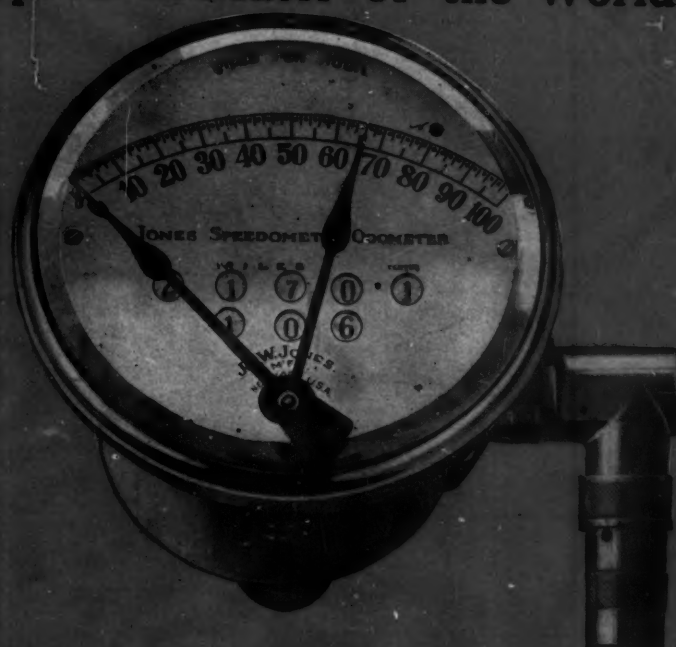
VOLUME XII

CHICAGO, DECEMBER 26, 1907

NUMBER 26

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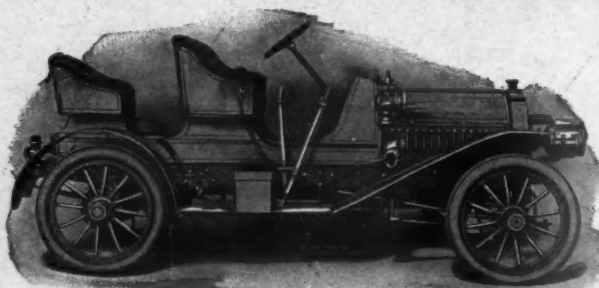
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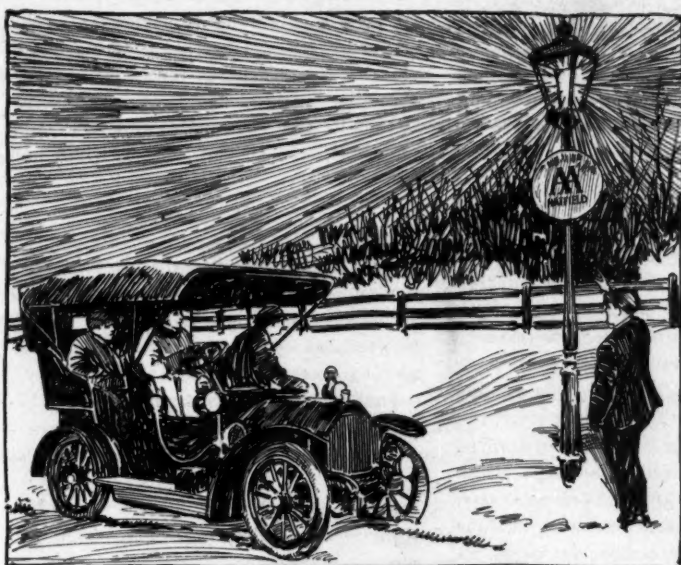
29 MORA PLACE

NEWARK, NEW YORK



MOTOR AGE

EUROPE'S METHOD OF MARKING ITS ROADS



ONE OF THE A. A. SIGNS AT TOWN ENTRANCE



DANGER SIGN PLACED AT TOP OF HILLS

SHORTLY after the completion of the recent Glidden tour European writers took occasion to remark about the poor road conditions of America, and it was only recently that a well-known English writer remarked that Americans were an immensely rich and practical people, but they had no roads or signs to direct them. Another writer stated that if Prince Borghese had tried to cross the continent of America he would have been lost. It is quite true that the United States is today prominent in the manufacture and use of motor cars, but it is only neck and neck with China in the matter of good roads. One often hears of contemplated improvements to be undertaken by this state or that one, or some body of road commissioners. Americans have been hearing these remarks for years, but they are still building up their billion-dollar motor car industry and tolerating narrow dirt roads such as they have known since the days of their forefathers. While it behooves them to reflect on the conditions of their roads, they are like Job still and await with patience a realization of better highways. They say where there is smoke there must be fire, and one must conclude that while Americans do a great deal of

talking when their shoulders are once put to the wheel, there is no turning back, and—American like—they will take up with vim the building of macadam roads equal to the grand highways found on the continent of Europe, and the isle of Great Britain, it is believed.

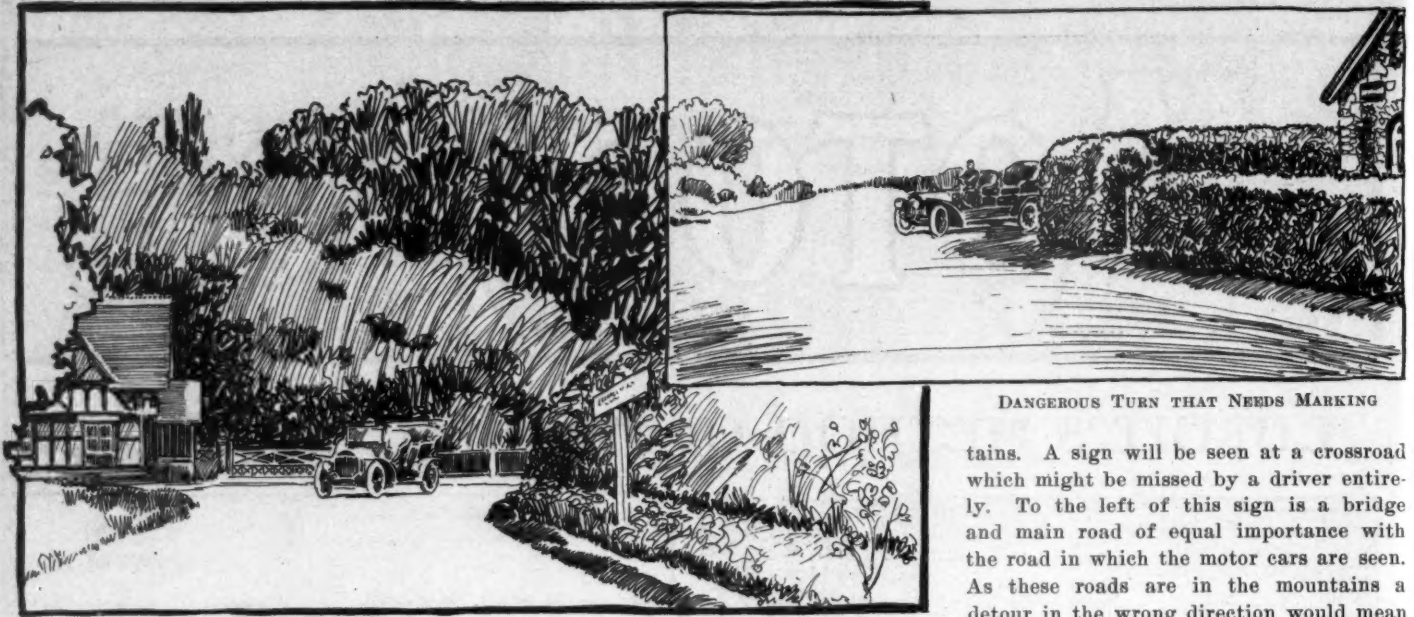
While Americans are lamenting and building up their hopes in the matter of good roads, they need not remain idle in other directions, and it is Motor Age's aim now, while still pursuing vigorously the

good roads idea, to touch on the matter of signboards and danger notices with a view of interesting the various communities on the importance of such precautions. On account of the great increase in the number of motor cars on the roads in this country, there has naturally been an increase in the number of accidents and deaths through ignorance of the motorists' whereabouts, and the absence of placards directing the way or pointing out unseen dangers. It is a fact that the American motorist not only endures his bad roads with equanimity, but he also must depend upon the near-by farmer—if one is near—or go miles out of his way—to find if he is on the right road. Also when needed advice cannot be had the inevitable happens and the accident occurs.

In Europe, where good roads abound, signs are to be found in all countries of importance, such as France, Belgium, Germany and England, and the governments make it a business to look after the roads and to attend to the direction and danger notices in the same manner that the business streets of large cities are looked after. In each country may be found different laws and different modus operandi for the protection and maintenance of



WARNING OF A BAD TURN



IN ENGLAND—A CROSS ROAD THAT IS POORLY MARKED

these signs, but they all work equally well, and it is therefore proof that it is not a difficult matter to carry out such an important crusade, not only to the motorist, but to the wayfayer and other travelers generally. With the increase in motoring and road traffic naturally comes increased facilities for intercommunication between towns and cities, and with these multiplied benefits must come increased dangers to human beings.

Motor Age lately has been watching the progress made in other countries far and



R. A. C.'S CAUTION SIGN

beyond the ordinary posting of direction signs, and for the purpose of its readers and the cause generally, desires to awaken an interest in the various motor centers with a view of properly posting caution boards, mile and danger posts in and about their various precincts. While, as stated above, there are different means and signals to show dangerous hills or railway crossings in the different countries, more particularly reference is made to the work of the English, who have formed bodies to promulgate the posting of signs for the motorists particularly, and the public generally. In London, which practically means

for the whole of England, the Motor Union and the Automobile Association have adopted the Royal Automobile Club equilateral triangle as a special caution sign. Also a cross is used in cases where cross roads are encountered or where there is a turning concealed from the driver's view. The first or caution sign is always placed on a base of the triangle with the point upward, and the second concealed turning sign is placed in the shape of an X. There are other signs of various shapes which denote churches, viaducts, bridges and the like, which are more in vogue in France than elsewhere.

It has been found abroad that the old wooden posts and signs are too easily blown down or destroyed, and that it is better to put up iron ones, strongly and with great care; therefore a metal sign is used in all cases, and these signs are always placed well out onto the line of the road and free from obstruction by foliage of the trees and quite secure from the attacks of the troublesome urchin. In most cases the posts are of good substantial pine, like a miniature telegraph pole, with their bases well tarred, and put firmly into the ground. As a rule they are about the height of an ordinary gas lamp such as are seen in American cities; in fact, in some places both on the continent and in England these posts are ordinary discarded city gas posts, which have been purchased cheaply and put into service. One would assume that on account of the displacement of gas street lamps by the more modern electric lights in the American towns and villages that such posts could be secured by the various motor clubs and others at very low figures.

Besides these danger signs the motor clubs and road commissioners abroad use other signs for protection and direction of drivers of road vehicles generally. In one illustration is shown a prominent Switzerland highway among the moun-

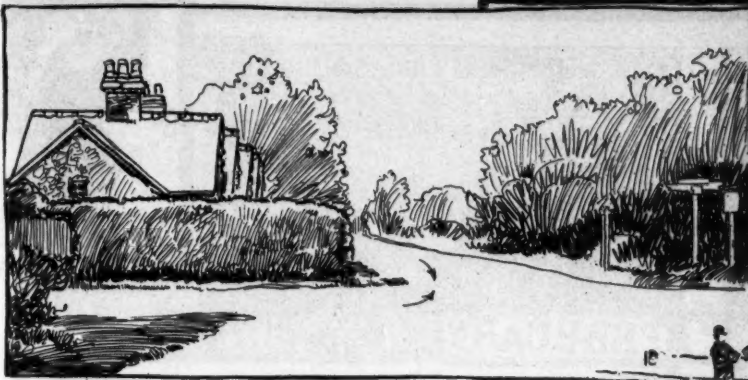
DANGEROUS TURN THAT NEEDS MARKING

tains. A sign will be seen at a crossroad which might be missed by a driver entirely. To the left of this sign is a bridge and main road of equal importance with the road in which the motor cars are seen. As these roads are in the mountains a detour in the wrong direction would mean many miles lost. This sign not only names the villages that the various roads connect, but also is a danger sign, and it might be said that many a wayfarer has benefited by it. In another illustration will be seen a sign at the top of a dangerous hill in England, which warns cyclists, motorists and others of their proximity to danger and to drive cautiously.

In Scotland the triangle is used also as a danger sign, and the adoption of this triangle for the United States is suggested, as it certainly is effective and its use would tend to make it an international sign as far as the English-speaking people are concerned. This is used also to a great extent on the continent. These signs have been erected by the Scottish Automobile Association, which has inserted its insignia very artistically within the triangle. These signs and posts have been very well put up and placed, and are each year renewed with metallic paint, showing how carefully the Scotchmen watch the interests of the motorists and communities generally. The "drive cautiously" board is sometimes varied, as in the case of the Motor Union signs of England, and when necessary, besides cautioning the motorists, they also give the names and



WARNS SCHOOL IS NEAR



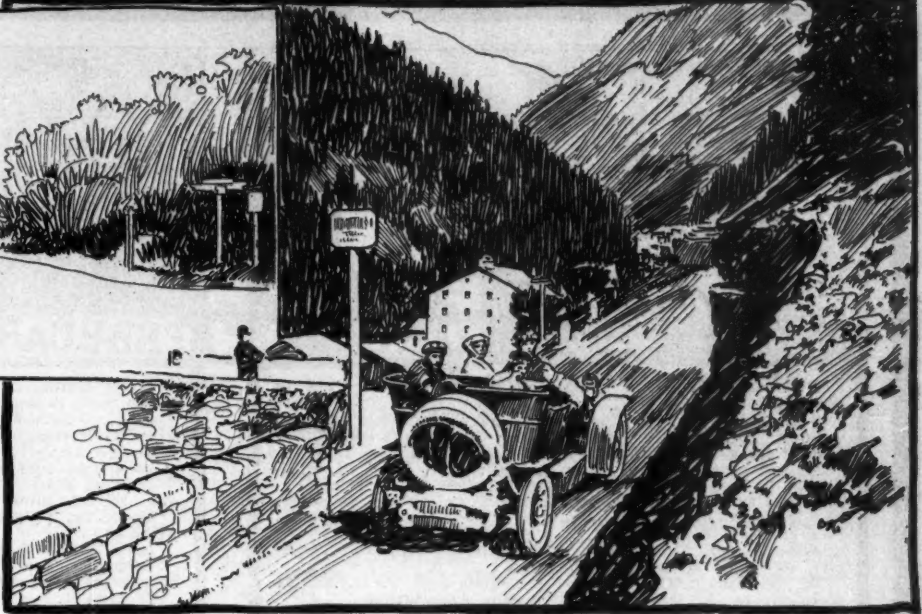
SCENE OF RECENT FATAL ACCIDENT

distances of the towns. Extra precautions are taken by the Motor Union to warn the motorists that they are approaching a school house, where the children might be playing in the road, showing the great care that is necessary under such conditions.

As a means of drawing the reader's attention to the importance of road signs and their utility as a means of avoiding accidents, two illustrations are shown, the first one being marked with arrows showing the direction in which a motor cycle was approaching—that designated by the straight arrow—and the direction the motor car was pursuing—designated by the turned arrow—when a fatality occurred. It is a most unfortunate coincidence that the person killed—Sir Henry Colville, who was the chairman of the Motor Cycling Union—was a great friend of the owner of the car which killed him—Sir Henry Rawlinson—both being army officers of rank. The second picture shows the car coming head on. In the first picture a direction sign of the usual English type is shown, but its position does not lend itself to the notice of the traveler, nor does the sign immediately behind the direction sign. This sign evidently is an old caution sign, which has by time become hidden by the foliage of the trees. Had a triangle of the modern iron type, with post painted white, been placed at the edge of the road farther down the line away from the crossing, it might have attracted Sir Henry Colville's eye, and brought to his mind that he must drive slowly and cautiously,



ONE OF SCOTTISH CAUTION SIGNS



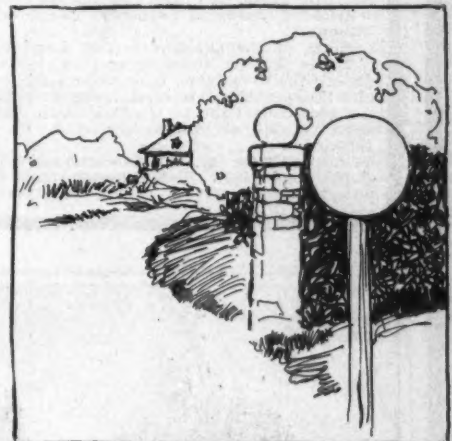
SIGN ON SWISS ROAD THAT COULD BE EASILY MISSED

and thereby his life might have been saved. This accident only occurred last month, and was generally regretted by the motoring public of England.

In another picture is seen a road crossing a main highway such as are often found in this country. While these cross roads are not so dangerous as the one mentioned where the fatality occurred, they are often unnoticed by the drivers of motor cars, and much time is lost pursuing the wrong course. Notice boards are as important on both sides of such roads as are the notice boards placed at the fork or Y-shaped corners. Still another illustration shows an Automobile Association sign on a gas post at the entrance of a town. As each town in England has a right to state the limit of speed within its precincts, and as there are great variations in the speeds according to the dictation of the various town councils, the A. A. of England has found it necessary to state on these signs the extreme limit at which motor cars can travel within the various town precincts, thus saving the motorists many fines and sometimes serious delays. In this case the villager is drawing the motorists' attention to the sign. These have become very popular in England and are respected by everyone. There is another sign which is a large white disk, perfectly round, which is a prohibition sign. These are for roadways on which motor cars are not allowed, such as private lanes, private park roads, and such byways as are not intended for the general public.

In London and the suburbs these signs are seen everywhere. In Paris on the outskirts of the city there is what is known as pavé—cobble stones—and sometimes this pavé meets the good macadam road very suddenly; even at these points precaution boards are placed to notify motorists of the fact. Another point to which attention should be called is that great care should be taken by first painting,

then placing these signboards. The usual color for the triangles or cross boards is a bright vermillion red. The standards or posts should be white to attract the eye from the road. It is obvious that they are useless unless properly positioned near the edge of the road, at some distance from the point which they refer to. Should no care be taken in the placing of such signs, and no attention given them after they are placed they become useless. However, it has been shown abroad that not only do the villagers and others respect the



ONE OF ENGLAND'S PROHIBITION TAGS

signs, but they are proud of them. They desire them placed within their precincts and show their appreciation of their presence by watching over them, and at times drawing careless motorists' attention to them when they think an infraction of the road rights is being indulged in. It is said—and very rightly, too—that the American villager or farmer has taken more kindly to the swift motor cars than like personages of other countries. If that is the case one can expect that sign posts and danger signals, as well as mileage placards, will be well looked after in this country if the various motor clubs will only wake up.



JANUARY

Denatured alcohol is placed on the free list by act of congress.

Stevens-Duryea six wins MacDonald & Campbell cup and Autocar runabout the Stillman cup in 2 days' reliability run of Quaker City Motor Club of Philadelphia.

Second of the winter's big shows, the A. L. A. M. exhibition, is held in Madison Square garden, New York.

Ninety-two cars, greatest number ever entered in international road race, are nominated for Germany's kaiserpreis; fees amount to \$89,000.

Annual meet at Ormond proves a frost because of scarcity of entries from big car makers.

W. H. Hotchkiss is elected president and F. H. Elliott secretary of the American Automobile Association.



FEBRUARY

Sixth annual national show of the N. A. A. M. is held in Chicago, larger and better than any of its predecessors.

Maxwell-Briscoe company sends three cars from New York to Boston, each using a different fuel—gasoline, kerosene and alcohol; gasoline holds its own, although kerosene proves most economical.

Thomas Flyer, driven by Ernest Kelly, makes a non-motor stop record, going 21 days, 3 hours, 29 minutes.

Motor car proves its worth in the earthquake disaster in Jamaica.

Leon Serpollet, the great French steam expert, dies.

Dieppe course is selected for the French grand prix, thirty-four cars entering.

Stearns makes best time in Atlanta hill-climb.



MARCH

Boston's show proves largest of the winter, there being 342 exhibitors, 423 cars and 121 different makes on view.

Packard roadster captures time honors in the Pasadena hill-climb.

Start of the Glidden tour is awarded to Cleveland.

Trade bodies cause sensation by selecting early show dates—the two New York affairs in October and November and Chicago the first week in December.

Automobile Club of Great Britain and Ireland changes its name to Royal Automobile Club by permission of King Edward.

Ralph Owen in an Oldsmobile defeats Bert Dingley in a Pope-Hartford in \$6,000 match race from Los Angeles to San Francisco after a strenuous experience in the mud.



APRIL

Six-cylinder Napier wins the English flexibility test, with a Vulcan second.

Jarrott in a 40-horsepower Crossley smashes the London-Monte Carlo record by 9 hours 30 minutes.

Report discloses that the 1906 A. L. A. M. receipts amounted to \$70,226.82, of which \$20,805.69 was rebated to exhibitors.

American Automobile Association selects June 12 as a national orphans' day.

Nazzaro in a Fiat wins the first big road race of the year, the Targa Florio, forty-five starting.

Importers decide to hold show of their own in Madison Square garden, December 28-January 4.

Five entries received for the Pekin-Paris race.



MAY

Frank B. Hower gives trophy for roadster competition in the Glidden.

White, Pierce-Arrow, Thomas and Pullman have clean scores in Wilkes-Barre 2 days' reliability test; Stoddard-Dayton only one with perfect mark in roadster division.

Mexican road race is won by a Pope-Hartford.

Autocar wins first of season's 24-hour races, doing 837 miles in long grind at Philadelphia.

Fifteen out of thirty-four make perfect scores in 98-mile reliability run in San Mateo county, California.

White steamer smashes record up Giant Despair in Decoration day hill-climb at Wilkes-Barre, Pa.

Ten tie with perfect scores in Long Island reliability and thirteen in New Jersey affair.



JUNE

Rover wins English tourist trophy race and a Beeston-Humber similar event for heavy touring cars.

Endurance run of New York Motor Club to Albany proves a mud plug, eight having perfect mechanical scores, but all being penalized on time.

Celebration of national orphans' day takes place in nearly all the big cities in the United States.

E. Ladenburg's Bens wins the annual Herkomer tour in Germany.

Nazzaro in Fiat wins the kaiserpreis cup in Germany's big road race.

Forty-one out of forty-seven cars survive with perfect scores in sealed bonnet test of Automobile Club of America.

Flight cars go clean in owners' reliability run in Detroit.



JULY

Nazzaro in a Fiat scores his third big victory of year by winning the French grand prix.

Eighty-six out of ninety-five entries start in Chicago Motor Club's reliability run, fifty-five surviving with perfect scores.

S. F. Edge in a Napier six smashes world's 24-hour record, doing 1,581 miles, 1,310 yards, an average of 65.9 miles an hour.

Locomobile wins 24-hour race at Minneapolis.

Lozier wins 24-hour single-car race at Philadelphia, with 717 miles.

Jackson creates single-car 24-hour record at St. Louis. Automobile Club of Buffalo wins Glidden trophy; Hower trophy taken by White steamer roadster.

AUGUST

PEKIN-TO-PARIS RACE ENDS

Minerva wins first half of the Ardennes and Mercedes the other.

Peugeot is winner of press cup in France.

Peerless is star in Milwaukee climb.

Thomas Flyer wins Brighton Beach 24-hour with 997 miles, new single-car record.

Pope company goes into hands of receiver.

Prince Scipione Borghese in an Itala first in Pekin-Paris race.

Charles W. Price, of Chicago, in sealed-bonnet Maxwell completes journey of 4,778 miles.

Chicago-New York record is broken by Franklin four-cylinder runabout; time for 1,060 miles, 39 hours 53 minutes.

PIERCE CAPTURES C.M.C ECONOMY HONORS



SEPTEMBER

Morris park 24-hour single-car race is won by Renault; distance, 1,079 miles, a new record.

Gaeth is only clean score car in Cleveland's 3 days' reliability test.

A 28-30-horsepower Pierce-Arrow wins Chicago Motor Club's economy run to New Carlisle, Ind., and return, doing 20.7 miles to the gallon.

Isotta Fraschini wins first half of Brescia race in Italy and the Itala the other.

Locomobile, in Milwaukee 24-hour two-car race, breaks record, doing 1,146 miles.

Successful commercial trials are held in Great Britain.

Fiat wins team 24-hour race at Morris park, New York, with 984 miles to its credit.

A.C.A. SHOW



OCTOBER

Rougier in a de Dietrich wins 13-mile Mount Ventoux hill-climb in France, averaging 40 miles an hour.

A. A. A.'s special committee votes to retain control of track racing under certain restrictions.

Stearns six wins pursuit race in Chicago meet, doing 4 miles from standing start in 3 minutes 58 seconds.

Pierce-Arrow wins motor efficiency test for Silent Knight trophy, run by Chicago Motor Club to Valparaiso and return, 196 miles; nine cars compete.

Mile track record is reduced to 51 3-5 seconds by Louis Strang in a Christie at Birmingham, Ala.

First of the big shows of fall of 1907 given in New York by the Automobile Club of America with support of the A. M. C. M. A.

THREE BIG SHOWS



NOVEMBER

Show of the A. L. A. M. is held in Madison Square garden, New York.

Sizaire & Naudin car captures voiturette cup contest in France.

Twenty-four-hour road test is held in New Jersey, eight—the Matheson, Haynes, Locomobile, Ford, Franklin, Thomas and two Oldsmobiles—surviving with perfect scores.

Olympia show opens in London with 140 car makers showing 545 different models.

Annual French salon attracts 1,400 exhibitors, display of cars and parts aggregating \$8,000,000 in value.

Frank Nutt in Haynes roadster makes only perfect score in 600-mile 3 days' reliability run of Chicago Motor Club; Pierce-Arrow is second and Oldsmobile third.

CHICAGO'S BIG ANNUAL N.A.A.M. SHOW

DECEMBER

Seventh annual national show of N. A. A. M., held in Chicago, is larger than any other event of the kind in the United States.

Sixteen make perfect scores in sealed-bonnet test at Washington, D. C.

American Automobile Association decides to promote stock car race in west this spring, referring matter to technical board.

Earp in Napier smashes 50 miles and 1 and 2 hours' records at Brooklands.

French discussing proposition to hold annual show every other year instead of annually.

Fred Titus in Thomas Flyer does 512 miles on roads of New Jersey.

REEVES TALKS ON TENDENCIES

General Manager of American Motor Car Manufacturers' Association, Back from Foreign Trip, Declares Feeling in Europe is Most Optimistic as Regards America

New York, Dec. 23—A right royal welcome awaited Alfred Reeves on his return to his office today. A bunch of newspaper men and tradesmen were on hand to greet him. They had decked his office with Christmas greens and flags and hung over its door the legend: "See, the Conquering Hero Comes." The popular manager of the independent clan arrived on Saturday by the Kaiserin Victoria after a tour of 6 weeks in Europe, during which he investigated market chances for the American cars, a report on which he will present to the A. M. C. M. A. While abroad he visited London, Paris, Venice, Milan, Nice and Monte Carlo.

Mr. Reeves said he noted great advances in the manufacture and use of motor cars for business; a decided tendency toward small pleasure cars, with a continued demand for the big luxurious ones; a feeling of conservatism among foreign makers and dealers awaiting the readjustment of financial conditions in this country and a desire in the European trade to have future exhibitions more as business shows with the cars as the prominent attractions, and less of the electrical and decorative displays with the consequent decreased expense. With him on the trip was Howard C. Marmon, of Indianapolis, a member of the association's technical committee, and a mechanical engineer of prominence in the west. The trade and sport were studied in England, France and Italy.

"The foreigners are much interested in the Florida meet and will send over their racing cars if the financial skies clear on our side so as to make this kind of advertising of their cars profitable. Edge is pretty sure to be a contender in any event," Reeves said. "The makers over there are crazy over races and all kinds of competition to advertise their cars. I visited the Brooklands track while in England. We need a similar course here. It would be a paying venture for the trade to build and maintain it.

"Preparations are under way for another grand prix race, probably over the old course, and there will be plenty of races and hill-climbs during 1908. Contests are always well supported by the makers, who appreciate their value to the industry. Touring over there is down to a science. England has its Motor Union and France, besides the automobile club, has its touring club with a membership of 110,000. Although the roads are narrow in England, France and Italy, we found them ideal, while the scenery, owing to the age of the country, is picturesque in the extreme. We enjoyed a 120-mile ride in a six-cylinder Rolls-Royce with Claude John-

son, of 1,500-mile non-motor stop fame. Bianchi in Italy is building a wonderful racing car, and he may get it over for the next Vanderbilt cup race. They would all like to win that event. Most of the makers are discussing the probability of sending machines over for the races in Florida in March. Darraq, Napier, Bianchi and possibly Renault may elect to try the speed of their cars on that famous course.

"One of the most interesting things to my mind, was the great progress that has been made in commercial vehicles. The last 5 years has made wonderful changes in the traffic conditions abroad, and I could hardly believe that it were possible in that short time to supplant so many horse-drawn vehicles with motor-driven machines. Particularly in London and Paris the motor cab is crowding the horse-drawn rig. In Paris the latter has had to have a taximeter equipment, so that now the proverbial overcharge of the Parisian hackman is only history. There are hundreds of motor buses, most of them double-deckers, although future ones will have one deck only so as to handle easier. The terrific test to which motor cabs and buses are subjected has revised ideas as regards clutches, gears and brakes. There are about 3,000 taxi-cabs in Paris and 800 in London. Almost every vehicle in Paris, even the horse-drawn cabs and coaches, have pneumatic tires. The solid tires, except on buses or trucks, is a rarity. Power trucks of steam and gasoline are used for hauling coal and for all kinds of work, ranging from the carrying of sixty passengers or 5 tons of coal, to delivering hats and shoes, and this in spite of gasoline selling at about 40 cents a gallon.

"Among the pleasure vehicles the tendency is toward the light four-passenger touring car of 24 horsepower or less. Most of the concerns that build big cars are also building small ones. Some of the small ones have only one cylinder, but none of them sells within the price of our small cars. It is my judgment that we have a good future in the foreign markets with the small types of cars which we manufacture in such large quantities, but the foreign markets will have to be entered and handled in a way entirely different from the methods followed there. Italy is giving France a hard race for the motor car trade, while England, too, is producing excellent machines. Little is heard of the German cars, and in fact, just before we sailed it was announced that Berlin would not have a show next year, but would postpone its exhibition until 1909.

"The motor car trade in England,

France and Italy seems to be largely waiting on America. It is clearly understood that our money situation here will effect the whole world, and if the thousands of regular American tourists refrain from going to Europe next summer it will be a serious thing for all European trade. The feeling is optimistic, however, as regards America, and it is agreed that a short time will see conditions normal again.

"Although there has been some discussion regarding the advisability of continuing the shows, students of the industry agree that the failure to hold shows would be a serious blow to the industry. Some want a show every 2 years, others would have it in a different city each year. England has arranged for shows at Olympia in 1908 and 1909. In my judgment it would be a grave error for America to discontinue its national motor shows. One or two big expositions conducted on business lines, without placing too much expense on the makers, is a tonic that the trade will always require. It is a pretty poor trade of any kind that does not have at least one national exhibition of its products. I am certain that even the discussion as to the value of shows is injurious to trade. The expense of the foreign show is twice what it is in this country, as they do not have uniform decorations and each maker spends thousands of dollars in trying to outshine his neighbor in booth decorations. The feeling is general that the shows should be made less expensive. Of course our American or any foreign exhibitor is overcharged for everything in France.

"We visited the Bianchi, Darraq and de Dion and other factories. Many of them have women working at the machines. About 90 per cent of all the machinery in the foreign factories is of American manufacture. Without it they would be unable to turn out the present fine type. At noon, one day, we saw 2,500 employees come out of the de Dion factory. The wages do not compare with those paid to American workmen, being only about half as much on an average. Women are paid about 60 cents a day for attending automatic machines.

"While in Paris we saw some interesting experiments with the aeroplanes. Incidentally, France is making great progress in building light motors for airships."

IMPORTERS' SHOW IS NEXT

New York, Dec. 23—Preparations are well advanced for the opening of the Importers' Automobile Salon show at Madison Square garden next Saturday night. A fine display of the foreign product in a highly artistic setting seems assured. Dealers in American cars along the row are showing fraternal good will toward the importers by displaying the show posters in their windows. In fact, all hope for a well-attended exhibit, believing that the success of the show from a selling and attendance standpoint will be a help to

business all along the line. The latest official list of cars to be exhibited comprises the following: Benz, Bianchi, C. G. V., Clement-Bayard, de Dietrich, Delaunay-Belleville, Delahaye, Fiat, Hotchkiss, Isotta, Maja, Martini, Panhard, Pilain, Renault, Rochet-Schneider and Rolls-Royce. Brewster, the carriage man, and Quinby and Rothschild, body builders, will also exhibit imported cars. As a feature of the show the management is to provide for a great New Year's eve hurrah for motorists by keeping the garden open until 2 o'clock on New Year morning. Supper tables in the restaurant are already being engaged.

TOLEDO AFTER A CLUB

Toledo, O., Dec. 21—Toledo will soon have a motor club which will be a business organization. Such a club never has been formed here although its need has often been felt. The present move was launched at a dinner given by Edward D. Libbey, at the Toledo club rooms a few days ago. There were present about twenty business men and the suggestion met with instant favor. President Sholes, of the Cleveland Automobile Club, and President George, of the Detroit club, addressed the gathering and their remarks met with approval. A committee was at once appointed consisting of A. L. Spitzer, E. J. Marshall, George S. Mills, Marshall Sheppey and J. M. Steenberg to draft a constitution and by-laws, and arrange for the incorporation. It is said that the new club will be launched with nearly 200 charter members. It will be a business club paying little attention to social features, and will employ a salaried secretary. The stated objects of the club are: "To secure uniform and proper legislation for the government of vehicles using the streets and highways; to aid the state and local authorities in the improvement and maintenance of the highways and city streets; to assist the state and local authorities in the enforcement of the laws in relation to the movement of vehicles and use of the highways and streets. Particular attention will be given by the club to the condition of the roads and streets in Toledo.

DRAWBACK ALLOWED

Washington, D. C., Dec. 22—The treasury department has ruled that on the exportation of motor cars manufactured by Brewster & Co. of New York, with the use of imported woolen carriage cloth, cotton cloth, metal fittings, plate glass, metal chains, rubber tires, and other imported parts and materials, a drawback will be allowed equal in amount to the duties paid on the imported parts and materials so used, less the legal deduction of 1 per cent, except in the case of leathers manufactured in the United States from imported hides, on which an allowance of 100 per cent of the duty paid on the portion of the hides so used by the manufacturer is granted by law.

ORMOND CARD IS OUT

A. C. A. Committee Announces List of Beach Races that Will Be Run in March

New York, Dec. 19—The positive fixing of the date for the Florida meet for the first week in March and the announcement of a 288-mile contest for racing cars for a trophy to be put up by the Automobile Club of America were the most noteworthy outcome of the meeting of the club's contest committee called to hear and act upon the report of Secretary Butler's trip to Daytona, which lasted until long after midnight today. Incidentally, the Florida East Coast Automobile Association has given over to the New York club the entire promotion and management of the meet in the south.

Arrangements have been made to provide a 32-mile circuit with land loops at either end. These loops will be constructed of 2-inch planking and will be banked 6 feet high at the outer edge, thus furnishing easy turns through grading away the sand dunes. All the long-distance races will start and finish at the clubhouse at Daytona, where will be erected a grand stand and timing board showing the position and times of the racers at all points.

The 288-mile race, made up of nine circuits, will be run under Vanderbilt cup rules with the new international weight limitation of 2,424 pounds in force. This weight limit, by the way, will govern all events. Two other long-distance events were also determined upon finally—one a 128-mile race of four laps for amateurs under conditions and for prizes to be announced later and the other the renewal of the 100-mile race for the Minneapolis cup.

The committee is non-committal as to the exact conditions of qualification of the so-called steam freaks for the Dewar mile and the 2-miles-a-minute races, which are to be continued, and a kilometer trial, which is to be added, beyond the statement that candidates for these races "will be required to make a certain minimum speed for a certain distance."

The following reasons are given for fixing the date of the meet for the week beginning March 2, 1908: "A careful and thorough investigation of the tidal conditions shows that this week, beginning March 2, will afford from 5 to 6 hours daily of good beach, varying each day between the hours of 10 o'clock and 6 o'clock, and in view of the long-distance races which are to be run, necessitating the widest beach possible in convenient hours of daylight, this date was selected as the only possible and proper one to meet all requirements.

"That the first week of March is the height of the Florida season, when many thousands of persons are then on the ground to witness the races, and the general temperature and weather conditions

are at their best and present the most inviting prospects to northern motorists."

The date of the Palm Beach motor boat regatta set for March 16, 17 and 18, will not be changed.

"Arrangements have been completed to provide an approximately 16-mile straight-away course, with loops, one at the northern end of the beach at Ormond and one at the southern end, at the inlet," says Secretary Butler. "These loops will be constructed of 2-inch planking, furnishing a roadway 32 feet wide and providing an easy curve by grading away the sand hills at the edge of the course. The loops will be banked 6 feet high at the outer edge of the curve. By this means a 32-mile circuit is available, beginning and ending at the clubhouse of the Florida East Coast Automobile Association on the beach at Daytona, in front of which all of the long-distance races will start and finish. This should provide the fastest course in the world for long-distance races. Here also will be located the grand stand and timing board, indicating the position of the competitors at all times during the race. The races already decided upon by the contest committee, entry blanks for which are now being prepared, are as follows: Long races—228 miles, for the Automobile Club of America cup, for strictly racing crews, to be run under the Vanderbilt cup race rules, providing a weight limit of 2,424 pounds; 128 miles; invitation race for gentlemen amateur drivers, prize and conditions to be announced later; 100 miles, international championship for the Minneapolis trophy. Short races—1-mile international record for the Sir Thomas Dewar trophy; 2-miles-a-minute race; record speed trials for mile and kilometer. Cars in order to be eligible to compete in the Sir Thomas Dewar mile record, 2-miles-a-minute record and the speed trials for the mile and kilometer will be required to make a certain minimum speed for a certain distance. The Vanderbilt cup conditions, limiting the weight of cars to 1,100 kilos, will govern all events."

BOOMING THE LONG RACE

Paris, Dec. 12—The *Matin* is identifying itself again with a great touring trial of strength and pocketbooks. This time it is not a Pekin-Paris affair, but a trip from New York to Paris via the Behring straits. In collaboration with a New York paper and with the assistance of the Standard Oil Co., the *Matin* has set to work to organize the tour and is awaiting entries. In France it is stated that the Charron, the Panhard, the Contal tricar and the de Dion will take part in the journey, and the lists are only just opened. People are looking for American entries. From all accounts the New York-Paris tour will be un fait accompli before the next season is on the wane, and it is certain, after the task set and accomplished last season in the ride across Asia, the entries will be more numerous, it is expected.

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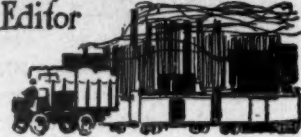


MOTOR AGE

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TRADE CONDITIONS BRIGHT



REPORTS from all parts of the country are now and have been to the effect that there is business stagnation, that money is hard to obtain, that large manufacturers and other employing industries are laying off men and closing their plants, that failures are of every hour occurrence. In spite of all these reports, some of which are more or less true and some of which are greatly magnified, business is going on apparently with its usual vigor and the holiday trade appears to have been almost if not fully as large as during the past few holiday seasons during the life of the motor car.

Motor Age presents its readers a general report of the conditions of and prospects for the motor car business, gathered by its own correspondents with a view of learning actual conditions. This information was gathered after careful investigation and after securing the opinions of the leaders in the retail and manufacturing ends of the industry. There has been no attempt to report the conditions other than as they actually exist. After reading what has been said of the past and the future of the business one must stretch his imagination to see things in any but an optimistic light or put down the leading lights of the industry as frightful prevaricators or ignoramus of the first water.

Nobody will pretend to say there is as much optimism now as there was a year ago; nobody believes there is the same demand for cars at this moment as there was during holiday week last year; money is not so plentiful as it was last December and there is not so much desire to invest now as there was then. But it is impossible to see where the entire business world has come to a sudden stop or that the motor car industry is suffering to any great extent. Most of the manufacturers of cars and accessories believed it was wise to curtail their anticipated increase in outputs, notwithstanding the fact that many had made somewhat elaborate preparations to turn out more than they ever had turned out. They deemed it only a necessary precaution—simply a safeguard for the benefit of self, the industry and business in general and they are to be commended for taking such a stand.

The output of motor cars in this country for 1908 will not be so great as all had anticipated before the financial flurry set in, but there is every indication it will equal the output of 1907 and that before the summer of 1908 has passed it is not at all unlikely there will be something of a

shortage of cars rather than a surplus. Possibly Motor Age is too optimistic, possibly there will be some turn in affairs to disrupt this argument; but from all that can be learned there is every reason to believe the backbone of the flurry has been broken and that henceforth business in all lines will improve.

Each and every manufacturer in the industry has made a careful investigation as to trade conditions both present and future, each and every agent has told of what may be expected of him after he has sized up the trade situation, and the calculations for the year 1908 have been based on these investigations. Is it probable that all these people have been so misled as to overrate what will be expected of them for the coming season?

UNWARRANTED ASSUMPTION



ENGLISH motor car makers and dealers have been stirred to the howling point over a line of correspondence between a firm which has been endeavoring to buy up surplus American motor cars and Harvey du Cros, who was asked to interest himself in the matter by furnishing capital to conduct the scheme of dumping these cars on the British market at cut prices. The correspondence in question would seem to indicate that this country has thousands of unsold cars on hand, that they can be secured for a pittance and sold for ridiculously low prices on British soil and still give to the promoters of the enterprise a handsome profit.

It is barely possible there are some unsold American cars of 1907 make and it is also barely possible the concern in question secured some of them for the purpose of dumping them on the British market, but it is almost beyond a possibility that the number of these cars is such as to even cause a flutter either on this side or in England. If there is a chance of foreign-made cars being dumped on the British market, it will be shown when the final reckoning has been made that they are of continental make rather than of American make, because it is a well-known fact that both French and Italian makers have stocks of 1907 chassis on hand and are not in a position to carry them for any considerable length of time.

There are few American makers who have any considerable number of finished



cars on hand now and the cars that are on hand will have no trouble in finding a market without being sacrificed to such an extent as to upset the trade conditions in any particular locality, British or other. The demand for 1907 cars in this country was too great to warrant the statement that there is any material surplus, even with those concerns unfortunate enough to meet financial reverses early in the season. The truth of the matter is that there are only three or four concerns that were so late in making deliveries that they found themselves in the position of being unable to dispose of their outputs and were thus forced to carry over any great amount of stock of cars and parts.

There is too good a market right in America for any concern to make a sacrifice such as would make it profitable to dump cars on the British market. There is no need to go to England to sell cars when this country has not yet been supplied and when other countries have been howling for cars all along and could not secure them because of the demand of the home market. Possibly there are a few cars that will make their appearance on British soil, but the number must be too insignificant to in any manner affect either the trade conditions at home or abroad.

When American makers have been able to supply the home demand they will be forced to seek foreign markets. That time has not arrived, but, when it does arrive, the Britishers will have something over which to worry and something that will cause a trade disturbance.

A SEASON'S COMPLIMENTS



MOTOR AGE desires to extend the compliments of the season, to thank its many friends for courtesies of the past and to wish all a happy and prosperous new year. There are at this time too many unnecessarily long faces in view of the fact that nothing really serious has so far happened. Pessimism is the worst ailment one could have with which to begin a new year. Perhaps Holiday Cheer will aid in driving away whatever pessimism exists—at any rate give Holiday Cheer a little boost and do your part toward driving away the clouds. Motorists have much for which to be thankful and much to which to look forward; the industry is a healthy and growing infant and will grow prosperous and strong if carefully fed and thoroughly exercised and given a good education. Keep on the bright side and smile in anticipation of a happy and prosperous new year.



CURRENT COMMENT



GENERAL approval ought to be stamped on the dates of the forthcoming Ormond meeting, which has been set for the first week in March, a time when southern weather conditions are ideal and when the motor car industry can afford to send a liberal delegation to take part in and witness the events. Another year, however, this date may not do because of the shows, which in all probability will be set further along on the calendar than they were this year. The management of the Florida meet has been assured that there will be a generous foreign representation if financial conditions permit and it is already assured that among the contestants will be S. F. Edge, who has been responsible for some terrific driving in England.

ALTOGETHER the south is to have its full share of attention from motorists, for in addition to the beach tournament there is every likelihood that Savannah will secure the stock car race which the American Automobile Association is to promote. The report as to the condition of the roads and what will be done for the northern motorists who participate in the affair are such as to preclude the possibility of there being any objection to holding the event so far away from more populous sections of the country. The people of Savannah have it within their grasp to make the stock car race such a success from all points of view as to make it a

THE WEEK IN BRIEF



American Automobile Association officials delighted with Savannah course and the proposed stock car races may be held there week beginning March 15; rules committee holds meeting in Buffalo and completes draft of regulations.

Alfred Reeves, general manager of the A. M. C. M. A., returns from Europe in optimistic mood and tells of the foreign tendencies as he observed them; entries of foreign cars at Ormond are promised.

Secretary Butler, of Automobile Club of America, returns from Florida and committee makes up card for Ormond meet and definitely decides to run races during week of March 2-9.

Statistics gathered from seventeen of the big reliability runs of year show that 44 per cent of the contesting cars made perfect scores; Pierce-Arrow has most clean marks.

Motor Age correspondents in all the large trade centers of country review past season and peep into future; reports all of an optimistic nature and most encouraging.

Everything in readiness for opening of show of Importers' Automobile Salon in Madison Square garden Saturday; handlers of American goods boosting the game.

Philadelphians lay out route for 2-day reliability run January 1-2, which will be season's eye-opener.

Fire does \$20,000 damage in old Prest-O-Lite plant in Indianapolis.

hot rival to the Vanderbilt cup race as a representative American affair. There is a much-neglected but fertile motor car field in the south, whose roads in many sections are second to none in the world, whose people, though sufficiently prosperous to invest in cars, have not been enthused to the buying point.

HOW good are American-made cars is shown by the result of seventeen reliability contests promoted during the past year in various parts of the country, wherein 44 per cent of the starters went through with perfect scores. It is true there was a wide difference in the matter of what constituted a perfect score, but all the contests were deemed so severe before the start as to preclude the probability of any considerable number finishing without having violated the conditions in some particulars. The result of these contests might provide Senator Morgan food for thought in his attempt to jolly up the makers for the sake of securing a little advertising patronage.

QUAKER motorists are not butterflies—they are real motorists and believe motor cars are made to use in all sorts of weather. They have scheduled, to begin New Year's day, a 2-day reliability run that with any amount of seasonable weather ought to prove sufficiently rigorous for any driver and any car. If the rules are as strenuous as were those in Chicago's 600-mile affair and there happens to be a foot or more of snow, there will be no such thing as a tie to be run off.

CREDIT must be given the Frenchmen for being early in the field with their announcements as to dates for their big events. Already it has been announced that the grand prix will be held on the Dieppe course, so that the makers can go ahead with their preparations with the assurance that the race will become a fact. In this particular respect the American Automobile Association has not shown the same promptitude as has characterized the French club, but there is some satisfaction in knowing that the A. A. A. is improving.

WORD comes from New Zealand that American makers are overlooking splendid opportunities to become thoroughly established there. A few American makers have been represented by British subjects who are not overenthusiastic about selling American-made cars, the inference being that if Americans wish to do business there—and the business awaits them—they should pick their agents or branch managers with extreme care.

IMPORTANT as is the work of placing guide boards throughout the country, motorists have neglected to score hits that might otherwise have been made. There is nothing that motorists and motoring clubs could do which would prove better for the game than to inaugurate a campaign for the signboard work, such as has been carried on by the Cleveland club and such as was started in Chicago by a signboard commission, but which has now turned the work over to the Chicago Motor Club. In reality this work is the one great thing upon which a club might build a reputation and at the same time benefit not only motorists but all users of the highways. When the good roads are marked with signboards, the poor ones will see so little travel as to be practically off the map, and then those responsible for them will awaken.

AMERICANS are boosters—not only of their own game but of the game of others. The agents and branch managers of American-made cars in New York city have turned in and are using all effort to boom the importers' show and to make it a success—for the benefit of motoring. There is no likelihood it will be anything but a success, taking into consideration the fact that the financial flurry has pretty well petered out and that anything in Madison Square garden is well attended, no matter what the conditions.

COMING MOTOR EVENTS



Brussels Salon—Annual Belgian show, December 21-January 2.

Importers' Show—Importers' Automobile Salon exhibit of pleasure and commercial vehicles in Madison Square garden, New York, December 23-January 4.

Hartford Show—Annual exhibition of Automobile Dealers' Association of Hartford, Conn., in Foot Guard armory, January 14-18.

Irish Show—Annual Irish show in Dublin, January 4-11.

Italian Show—Exhibition in Turin, Italy, January 18-February 2.

Detroit's Armory Show—Seventh annual show of Tri-State Automobile and Sporting Goods Association in Light Guard armory, February 10 to 15, inclusive.

Boston Show—Annual Boston show, from March 7 to 14, in Mechanics hall. Chester I. Campbell, manager.

Buffalo Show—Sixth annual show of Automobile Club of Buffalo, from March 9 to 14. Dai H. Lewis, 760 Main street, Buffalo, manager.

Pittsburg Show—Automobile Dealers' Association of Pittsburg show in Duquesne garden April 4-11.

Canadian Shows—National motor car and sportsmen's exhibition in Toronto, March 21-23; third annual show in Montreal, April 4-11. R. M. Jaffray, 1 Wellington street, Toronto, manager.

FORTY-FOUR PER CENT GO CLEAN

Seventeen of Leading Reliability Runs of the Year Just Closing Show Nearly Half of Contesting Cars Made Perfect Scores—Best Showing by the Pierce-Arrow

Chicago, Dec. 24—The last of the reliability runs of the season of 1907 has been run, the final contest being the sealed bonnet affair at Washington, D. C., and a resume of the year shows astonishing figures that redound to the credit of the motor car as proving its general reliability. As a general rule the average reliability run, from the standpoint of 1907, is too easy. Five years back it was a different story. Then a car that could travel even 100 miles, making all controls on time and requiring no repairs or adjustments would have been a 7-day wonder. Now, however, one that cannot do it, unless, of course, prevented by some slight mishap that could not be foreseen, is not given much consideration by the buyers. Still, the census of 1907 is particularly interesting, as it shows that 44 per cent of the cars that participated in seventeen big events came through with perfect scores.

Statistics have been carefully compiled by Motor Age and these show that in these seventeen runs 544 cars started and 248 of them went clean. The total distance traveled was 6,254 miles, an average of 367 miles to the run, an average made this large by including the Glidden tour, which practically is a reliability test and which this year covered approximately 1,500 miles. In addition there were two 600-mile tests, one the sealed bonnet run of the Automobile Club of America, lasting 4 days, and the other the show reliability of the Chicago Motor Club, which was crowded into 3 days. The Newark 24-hour test was over a distance of 472 miles, the Cleveland stunt was 450 and the New Jersey Automobile and Motor Club affair 415. The largest run of the year was the June reliability of the Chicago Motor Club, which had eighty-six starters, fifty-five of them getting perfect scores. The Glidden had sixty-three in actual competition and the general average for the seventeen reliability runs was thirty-two cars.

The seventeen runs which furnished the statistics included the New Year's run of the Quaker City Motor Club, in which no perfect scores were made and in which thirteen survived. Only one other run duplicated this record, every car in the New York Motor Club's famous trip to Albany in May being penalized for being late at controls, although several of them were perfect mechanically. The Chicago Motor Club's show reliability returned a definite winner, the Haynes, and was the most strenuous of the year so far as the rules are concerned. In no other event did the judges enforce such rigid rules, and the general consensus of opinion is that this set of regulations will serve as a

model for others during the coming season, it being the belief that this is the only way in which a definite winner can be evolved. Cleveland did likewise in returning a winner in the case of the Gaeth.

Of the seventeen runs two were for owners only, and the success of the promoters of these indicates that in the future attempts will be made to interest the owners in such sporting affairs, as the general public will be impressed more in the reliability results where they are produced by others than those in the trade. Detroit had the first one and of the fifteen contestants eight had perfect scores. At St. Louis twenty-six owners participated and sixteen of them went through perfect. In only one case was there a run-over to decide a winner, the Long Islanders, who had ten in a tie, ordering those interested to try again. When eight of them duplicated their previous performance the officials threw up their hands and let the last verdict stand.

The sealed-bonnet craze came in with the 4 days' test of the Automobile Club of America, and in this forty-one of the forty-seven cars involved survived without penalization. Then the Chicago Motor Club tried the same experiment in June and the Milwaukeeans followed suit 2 days later. Cleveland also used the sealed bonnet and so did Newark. The Chicago show reliability had the same regulations and so did the Washington affair this month. The sealed-bonnet idea, however, does not strike the critics as being an absolute necessity when the other conditions provide for penalization in case of any repairs or adjustments. It simply is another talking point for the dealer whose car has survived without breaking the seals and is a check on the observers.

In connection with this sealing several good stunts were pulled off in the case of the Mora, Maxwell and Mason. The first named went through the A. C. A. affair perfect, then without breaking the seals the car was driven overland to Chicago, where it took part in the June reliability. It went through without breaking a seal, but suffered penalization for a broken wheel. Then the car was driven back to the eastern factory and ran for some time longer without cutting the wires. The Maxwell got its start in the Chicago June reliability, then was driven to Peoria, where it went through a 6-hour race, after which it was driven back to Chicago for the Glidden 24-hour event. It was just in time to join the Gliddenites and go the rest of the way with the A. A. A. tourists. At the conclusion of the Glidden the car was driven back to Chicago, mak-

ing nearly 5,000 miles without touching the seals. The Mason was a clean-score car in the Chicago June affair, then was driven to Milwaukee for the Cream City event 2 days later, in which it duplicated its Windy City performance.

Information at hand is not complete enough to tell exactly how many times each of the different makes was represented in reliability runs, several of the reports simply giving the perfect-score results; but a compilation of these figures shows just how many perfect scores were made by sixty-seven different makes of cars. To the Pierce-Arrow belongs the honors in this respect, the Buffalo product having achieved success thirteen times, with the Maxwell only one behind and the Buick two. The foreign cars do not shine on this roll of honor, only two of them winning renown in this respect—the Rolls-Royce and the Darracq. The seventeen-run list is as follows:

| | | | |
|-----------------|----|-----------------|-----|
| Pierce-Arrow | 13 | Welch | 3 |
| Maxwell | 12 | Franklin | 3 |
| Buick | 11 | Grout | 2 |
| Stoddard-Dayton | 9 | Mora | 2 |
| Packard | 9 | Moline | 2 |
| Rambler | 9 | Mason | 2 |
| White | 8 | Craig-Toledo | 2 |
| Haynes | 8 | Marmon | 2 |
| Oldsmobile | 8 | Pullman | 1 |
| Thomas Flyer | 7 | Gilde | 1 |
| Matheson | 7 | Autocar | 1 |
| Corbin | 7 | Barnum | 1 |
| Locomobile | 7 | Darracq | 1 |
| Ford | 7 | Rolls-Royce | 1 |
| Premier | 6 | Aerocar | 1 |
| Pope-Hartford | 6 | Continental | 1 |
| Jackson | 6 | Deere | 1 |
| Cadillac | 5 | Holsman | 1 |
| Columbia | 5 | Cartercar | 1 |
| Winton | 5 | Shoemaker | 1 |
| Knox | 5 | Pierce-Racine | 1 |
| Peerless | 5 | Frayer-Miller | 1 |
| Reo | 4 | S. & M. Simplex | 1 |
| Mitchell | 4 | Diamond T. | 1 |
| Berliet | 4 | Queen | 1 |
| Wayne | 4 | Lambert | 1 |
| Studebaker | 3 | Triumph | 1 |
| Elmore | 3 | Shawmut | 1 |
| Pope-Toledo | 3 | Kisselkar | 1 |
| National | 3 | Walters | 1 |
| Dragon | 3 | Gaeth | 1 |
| Lozier | 3 | Bates | 1 |
| Royal Tourist | 3 | Maryland | 1 |
| American Mors | 3 | Total | 248 |

PHILLY'S EYE-OPENER

Philadelphia, Pa., Dec. 23—The Quaker City Motor Club's eye-opener endurance run to Allentown and return, scheduled for January 1-2 next, promises to be a record-breaker as regards the number of entries. From New York, Harrisburg, York, Reading, Easton, Allentown have come requests for blanks, until Contest Committee Chairman E. C. Johnson has been compelled to raise his estimate of probable starters several times. The pioneers who last week went over the route made arrangements for controls. Five carloads—Packard 30, Stearns 30, Stoddard-Dayton 40, Studebaker 35 and Frayer-Miller 24—left the city hall at 1 o'clock Saturday afternoon. Chairman Johnson was in the Packard and led the quintet up Broad street to the Old York road, thence via Willow Grove to Doylestown, 26.7 miles, where the first checking station was established at the Fountain house. At Ottville, 38.5 miles, the second station was set up at the Red Hill hotel, and then followed a rough drive over the old Easton pike to the Delaware river, which is followed over a veritable boulevard to

Easton, 57 miles, where contestants will check at the soldiers' and sailors' monument. To lengthen the first day's ride a detour will be taken via Nazareth, making the first day's mileage 78.9, the night control being established at the Allen house. The trip up from Philly, despite the many and lengthy stops on the route, was done in less than 5 hours. At 10 o'clock Sunday morning the Quaker quintet, with several Allentonians as guides, pulled out over the Reading pike for Kutztown, where Johnson arranged for the first checking station at the Penn hotel, 18.2 miles. The going varied from poor to rotten. From Kutztown into Reading the roads are excellent. At Reading, 34.7 miles, the official control was established in front of the Mansion house. After that it was a well-beaten path for every member of the party, the Philadelphia-Reading ride being a general favorite for Quaker City motorists. Controls were arranged for at Pottstown's Shuler house, 51.3 miles, and at the Mansion house, Norristown, 70.7 miles. The city hall, 93.7 miles, was reached at 4 o'clock. The length of the 2-day run was 172.6 miles, and on this basis the official schedule now being arranged by the contest committee will be figured.

PLANT DAMAGED BY FIRE

Indianapolis, Ind., Dec. 21—For the second time in less than 6 months the plant of the Prest-O-Lite Co., at East and Pearl streets, was wrecked by an explosion and fire yesterday afternoon. One man was injured so badly that he died a few hours later, while three others were seriously hurt. Preparations were being made to move all the machinery to the company's new plant when the explosion occurred yesterday. It is believed the first explosion was caused by a spark from a tank being polished, igniting gas escaping from a filling tank near by. The entire inside of the building was wrecked and the loss to the company was at least \$20,000 as there was no insurance and will be no salvage. The Prest-O-Lite Co. has just completed a new plant in this city at a cost of about \$30,000. It is constructed of concrete and is fire proof in every way. The machinery will be arranged so that it can be shut off by automatic switches in case of danger, and the various apartments will be shut off from each other by fire-proof doors. No effort will be made to use the old plant again and business will be resumed in the new place within a few days. Only a few employees were working at the time of the explosion. Had the full force been employed, from fifty to sixty men would have been placed in danger. City councilmen are talking of introducing an ordinance at the next session of the council that will compel the Prest-O-Lite Co. to move outside of the city limits. However, as the new building is fire-proof and reduces danger to a minimum, such an ordinance would likely fail to pass.

GEORGIA MAY GET IT

A. A. A. Officials Delighted with Course Offered at Savannah for Stock Car Events

Buffalo, N. Y., Dec. 21—Rules to govern the proposed stock car race of the American Automobile Association were considered today at a meeting of the rules committee of the national organization held at the Iroquois hotel which was attended by President Hotchkiss, ex-officio member of the committee; Chairman Van Sicklen and Secretary Beecroft, of the technical board, and Edgar Apperson and E. R. Thomas. A. L. Riker, Henry Souther and Henry Ford, other members of the rules committee, were not present, although Souther and Riker sent in their views of the rules suggested. After an all-day session the final draft of the rules was completed with the exception of the clauses relating to the classification of the cars. This draft will be presented at a meeting of the executive committee of the A. A. A. which will be held Saturday, presumably in New York.

Following this meeting President Hotchkiss issued a statement which was of a somewhat startling nature in that it shows that Indiana has been eliminated from among the possibilities mainly because the necessary permission to use the roads cannot be secured because the legislature does not convene this winter. With this announcement Savannah stock went up, caused mainly by the report made by a committee consisting of F. G. Webb, representing the racing board; N. H. Van Sicklen, representing the technical board, and Secretary F. H. Elliott, which recently visited Savannah upon the invitation of the Savannah Automobile Club and carefully inspected the proposed route for a stock car race, conferred with civil and military authorities, investigated the hotel and transportation facilities and which recommended favorable action by the association. The executive committee, however, is unwilling to take such action until it finds that the trade is sufficiently interested to support such contests. To discover this sentiment President Hotchkiss is sending out a letter in which is given in a summarized form the report of the investigating committee, which is given out as follows:

Course—Practically 20 miles, or for short races or where a small number of entries will permit, a course of 10 miles; the latter with banked turns and practically a race track such as does not elsewhere exist in the world. On both courses there are two straight stretches, practically level, each 4 miles in length. On the large course there are some sharp turns which will be eliminated if desired, and some considerable grades. The twelve turns are capable of reconstruction and banking so that at the least ten can be taken at speed. The road surface is hard, and save in one or two places for short distances are broad and equal in every way to that of the last Vanderbilt cup course. There are practically no intersecting roadways.

Policing—By state troops, from 200 to 500 being promised by the military authorities. Roadways joining the course will be fenced during the progress of the races. The entire course is to be oiled.

Transportation—By steamers, three each week to Savannah from New York, and two each from Boston, Baltimore and Philadelphia, with low round trip rates and average freight for cars \$25; by railroad, nine trains daily from New York on different roads, and corresponding facilities from other centers.

Hotels—Facilities ample; three large hotels, all of them within a few miles of the course.

Coöperation by local authorities—Assured; the committee in charge includes the mayor, the president of the chamber of commerce and the cotton exchange, highway officials, militia commanders, etc.

Time—The week, or possibly the second week, after the Ormond carnival for speed cars. At this time spring is far along in Savannah; the return of southern tourists has begun; fine weather and large attendance, not only of strangers, but of residents of Savannah, Atlanta, Charleston, Birmingham and the leading southern cities are certain.

This report was considered by the rules committee and it is said the rules provide for a series of contests between strictly stock cars with racing bodies, with the entrance fee not to exceed \$500 and all races to be from 150 to 300 miles. Handsome trophies will be put up by the city of Savannah. The date favored is the week beginning March 15.

"Conferences with manufacturers during the past few days indicate a desire for contests of this character in the early spring under the auspices of the A. A. A.," writes President Hotchkiss. "It is suggested that present financial conditions make important the publicity of a national event of this character before the end of March. The Savannah plan seems to afford the only opportunity where weather and road conditions are practically certain, and where alone in the United States proper policing of the course can be had.

"The races, if held, will be under the auspices of this association and personally managed and supervised, the events themselves by the racing board which conducted the last Vanderbilt cup contest, assisted in all technical matters by the technical board."

GRAND PRIX PLANS

Paris, Dec. 14—The French are again making a great bid for popularity and consequent trade by getting out early with the arrangements for the grand prix. Public opinion has it that the matter should be settled out of hand, and the French club committee handling the matter has held meetings this week to fix the principal points. The race will be held early in July next, and entries will be accepted until February 15 next at the entry fees fixed. These are as follows: For one car, \$1,000; for two cars, \$1,750; for three cars, \$2,500. After February 15 and until June 1 the entrance fees will be doubled. The minimum weight of the cars has been fixed at 2,430 pounds. The race is to be run under the rules drawn up for the international races of 1908, as adopted at Ostend, and the only additional rule is one providing that the maximum bore must not exceed 4x6½ inches spread over four or any number of cylinders. The race will be run over 500 miles of road, and it seems almost certain the Dieppe circuit will again be chosen. The first entries received are for three Germain cars.

MOTOR TRADE IN MOST OPTIMISTIC MOOD

CHICAGO, Dec. 21—Optimism prevails in the ranks of the Chicago tradesmen and while business at the present time is rather slack, still there are many who believe that the coming season promises much. There are some who are complaining of dullness at the present time, but in explanation of this one optimist points out that the show is responsible for the feeling in that heretofore the dealers always have done a big business after the Coliseum event, whereas right now there is not much doing. This same optimist, however, points out that now it is the heart of winter, whereas after previous shows spring has been close at hand, bringing with it much business. However, there is every reason to believe that the coming year will be a good one—maybe not as good as 1907, but above the average when conditions themselves are taken into consideration.

Undoubtedly the recent show has done the retail trade much good and while the results are not apparent now they will be later on. Future prospects are reported good and if Chicago has its usual open winter there is no reason why the new season should not open early. The weather last spring hurt trade considerably because of the rain and mud that prevailed well into the summer, which led to the remark that there are only two seasons in Chicago—August and winter. Still, Chicagoans are becoming used to this brand and even now there seems to be little diminution in the number of cars running up and down Michigan avenue. Most of the cars, however, are fitted with tops and glass fronts and so far the weather has not been such that the motor traffic has been tied up because of the roads.

The local row continues to grow and still the new makers are fighting for representation here. Few—very few, in fact—failures have been reported and the way the trade has stood the flurry causes wondering comment on all sides. The newcomers seem to be well equipped financially and the indications are that more cars will be represented here in 1908 than ever before. The row, too, is continuing on its march to the south. Now the limit in that direction is at Twenty-first street, where the Walden W. Shaw Co. has located with the Berliet, Premier, Reo and Columbus electric. Also near neighbors of Shaw are the Haynes, Baker electric and Adams & Engle, who have moved into the block between Sixteenth and Eighteenth. In the heart of the row—between Fourteenth and Sixteenth—the demand for room is greater than ever and during the last year several new buildings have gone up, which are occupied by the Buick, Rambler and others, while among the newcomers in that block are the Stearns, Lanth & Juergens Tourist and De Luxe. Ralph Temple has moved into his new building just south of Twelfth street, while at Harrison, in the

Reports from Chicago, New York and Other Cities Show Industry To Be On Sound Footing

new International Harvester building, Webb Jay has located his headquarters, which are within a stone's throw of the White place.

One of the features of the winter has been the springing up of cab companies, three of them having been announced recently, Orlando F. Weber, C. A. Coey and C. H. Foster, the latter two with the Thomas and Cadillac respectively and the first named with the Renault, having declared they will be ready for business in a short while. The commercial end of the proposition, too, seems to be growing and if the proposed wheel tax results in better city streets it is said the power wagon certainly will be given a boost in the right direction.

Chicago is essentially a city which is supporting the American product, there being few imported machines sold in this town. The Mercedes dropped out of the running recently and the Hamilton company which handled the Fiat among others, failed. One or two concerns handle foreign cars but evidently the machines from the other side of the ocean are not as important factors in the game here as they are in New York.

NEW YORK OPTIMISTIC, SO IS NOT WORRYING

New York, Dec. 23—New York dealers are marking time. And, to be frank, so also is the public in the matter of buying cars. The present, however, is not worrying the trade much. It is upon the future that it is speculating and reasoning. Motor car row is in a philosophical frame of mind over the present practical hiatus in purchases. It is pretty generally believed that the early show experiment has not been a success through the early idea having been carried to the extreme which killed the autumn trade. Few now favor the holding of the first of the shows earlier than December. A majority inclines toward a return to the January dates. A hitherto impressive argument in favor of an autumn show has been that it insured the dealers being ready for the opening of the spring trade with stock on hand for immediate delivery. This was an argument, however, of a time when the demand invariably exceeded the supply. Increased manufacturing facilities through the enlargement of plants and the increase of the number of factories will now hardly admit of such a happy condition and the extra spur to prompt production is now much less needed. With the early show factor out of the consideration, there is another condition now existing. With in-

creased and adequate production the buying public no longer believes that orders must be placed in December, January and February to secure deliveries in March, April and May. So it is that winter buying in Greater New York is now almost exclusively for winter use.

To offset the falling off and almost practical abandonment of the placing in winter orders for spring delivery there has come, however, a new class of winter purchasing in the demand for town cars. American makers so far this season have been utterly unprepared for this, though there is a chance that some of them will be supplied with closed cars to reap a harvest in January and February, if business and money conditions will permit, as there now seems every chance that they will. Dealers in the home product are likely to have active competition from the importers in this direction. The demand largely is for low-powered and priced cars ranging from 10 to 20 horsepower and from \$3,000 to \$4,500 in price. The Thomas agent says he could have sold twenty town cars had he had them to deliver at once. Buyers of these vehicles are not willing to wait for them as they are for open cars, but expect to take them practically right off the floor. It is, however, with the outcome of the business and money situation that the trade is most concerned. This is particularly true of the latter. First and foremost, calm students are not shaken in their belief that the motor car has come to stay and that among the well-to-do the motor car is no longer a luxury but a necessity and as much a requirement of modern civilization as the telephone and the typewriter. During all these days of financial depression there have been visitors at the salesrooms along Broadway. It is argued with hope and with reason, too, that these investigators are not examining cars out of mere idle curiosity or even interest or to get in out of the cold; but that they are intending buyers and, what is more, prospective purchasers, with money to back up their desires. As prudent people it is but natural that in these days of doubt they should figure it out as the wiser policy to keep their cash in the bank and await a clearer financial outlook ahead or the arrival of the insistent outdoor season with the coming of spring.

With the payment in January of hundreds of millions of dividends it is expected that the money situation will be cleared and the future certain even if a return to former completely prosperous times be a bit delayed. But when the spring comes these buyers will listen to the call of the wild and will make their long-deferred purchases. There will, of course, be a small percentage put out of the running by financial disaster and there will be others already owning cars who will have to make their 1906 and 1907 machines answer

them for 1908; but all this time the list of replacements to be made some day by the buying of new cars will be growing and the harvest will in the end be reaped.

So great is the confidence here in a big spring demand that prophecies are made even by conservative men that the present curtailment of production, if continued, will find many a maker and dealer short of cars when the rush comes, thus leaving the demand to be supplied by the bolder producers. A change in the money situation with the beginning of the year will, however, most likely bring about a resumption of manufacturing that will increase preparedness to meet this very probable rush demand.

The season of 1907 evolved in the end as a prosperous one for the dealers handling the popular makes and the product of factories of undisputed financial strength. In a word, it was another great year for the top-notchers, not one of whom but showed a substantial advance in profits over last season. As will be remembered the season started with a late spring. Week after week the dealers put out in the aggregate thousands of dollars in Saturday and Sunday advertising in the hope that the long-deferred sunshine and springtime would come, only to have their expectations dashed to earth and their outlay wasted through continued cold or rain or storm. In fact, warm weather and real spring did not come until June. The result was that the selling season, which normally, so far as business goes, ends on July 1, was extended through July and August. Some dealers in fact did their biggest business in these last-named months. By October 1 the 1907 cars were pretty well cleaned out. Then came the new models and a dull season attributed to intending buyers awaiting an all-around inspection of the new models at the shows. The latter came at the beginning and height of the panic, which naturally put a quietus on selling.

The trade changes during the year have been numerous. Weak-kneed brothers have been forced to the wall and little fellows have been crowded out of a market in which it is most expensive to enter and remain. The newcomers are few. Garford has invaded New York under the leadership of William H. Hurlbut, one of the most able and successful salesmen and managers in the retail trade. The big Hol-Tan Co. has switched to the American car bearing its own name. Apperson has found an experienced New York representative in the veteran Bowman and the Cleveland has established its headquarters here with William Woods in charge. The Northern is once more represented here through R. G. Howell, a salesman of long local experience. Several men prominent socially and in the trade have begun the manufacture of a new car—the Allen-Kingston.

Other trade changes of the year have to do mainly with the down-and-out division. De mortuis nihil nisi bonum, which trans-

lated into Yankee Doodle means, "Don't knock the dead ones." The building of palatial motor car emporiums has been somewhat checked during the past year though the new buildings of the Packard branch and the Harrolds Motor Car Co.'s Pierce agency bespeak the unchecked growth of big fellows in the business. The new building of the Palmer & Singer Mfg. Co., one of the most prominent of local agencies, tells also of confidence in the future growth and prospect of the business. For the most part, however, the retail trade is seeking moderate-priced quarters. In a word, the days of bluff are happily near their end here.

NEW ENGLAND FOUND A PROSPEROUS YEAR

Boston, Mass., Dec. 23—Dealers all over New England are looking back now on a year of what was to them one of the most prosperous of their careers. There has been a great increase in the number of cars sold and the orders still continue. While other sections of the country are feeling the effects of the tight pinch rather severely it has not been felt very hard here. There have been a few cases where men were laid off, but not very many. When the Boston show ended last March it gave the motoring game a long push forward. It always does every year, for the date is just right for New England conditions. The weather the past summer was a good one, too, and the people hereabouts went in for a lot of motoring. The stringent laws were eased up a bit because of the activity of the motor clubs throughout the state.

The Boston dealers continue to hold down their jobs well. Very few are the changes in this city. The Premier switched from an agency to a branch, H. L. Johnson from the factory succeeding George Squiers, who had the agency. The Corbin shifted from a branch to an agency. E. T. Kimball was let go and George Dunham, of the Royal Tourist, took it. The Oldsmobile passed through the hands of Arthur Adams from A. E. Morrison, then to Charles Henshaw, of the Haynes, and later to Adams again, who now has it. Mr. Morrison also had the Stearns, but that is now unrepresented here. The Wayne that was formerly handled by J. M. Linscott, of the Reo and National agencies, was shifted at the New York shows to the Morrison & Price Co. Price brought the Rainier with him to the new concern. The Thomas was shifted from the Harry Fosdick Co. and it is now in the hands of the Whitten-Gilmore Co. Mr. Whitten came from Lynn and Mr. Gilmore, formerly the Rambler man here but later with the White company in New York, came back to join the concern. The Haynes that Mr. Henshaw had is not represented yet. The Harry Fosdick Co. took on the Atlas and the Springfield when it lost the Thomas. The F. E. Randall estate lost the agency for the Stevens-Duryea cars and it was taken up by the

J. W. Bowman Co. The Randall concern now has the Pullman and the Pennsylvania. The Panhard and the Hotchkiss have joined the few foreign cars that have opened agencies here. Very few companies had trouble. The Bay State Forty company assigned as did the one making the Holmes car, but they may get going again. There has been a great boom in building garages and show places for motor cars in the motor row section. The territory is not large in which to build places but a lot of buildings that were formerly homes of Back Bay society were given over to business on Boylston street. The erection of the new Copley square garage gave a good opening for a number of concerns which were looking for available sites. The White company put up a big four-story garage for its own use, too. The total valuation of the places erected for motoring show rooms alone in this city during the year would reach well above the \$1,500,000 mark.

The coming year looks good to the dealers. It is an absolute fact, and the figures will show on their books that many of the dealers now have orders much in excess of what they had last year long after this time. Some of the men have increased their orders. An example of the optimism here is shown by Mr. Fuller, of the Packard, who last season had 110 cars allotted to him but this year ordered 225. Other big and little cars are selling well, too.

TOLEDOANS SATISFIED WITH PAST AND FUTURE

Toledo, O.—Dec. 21—The year just drawing to a close has been one of general satisfaction to dealers here. While the season was shorter than usual and while there was a peculiar spasmodic condition that caused trade to come by fits and jerks throughout the season, the volume of business transacted was above the ordinary and the general results have been very gratifying. Cold, wet and disagreeable weather dragged far out toward the summer months and effectually shut off all idea of business so far as buyers were concerned last spring, but when the season did open it made up for lost time.

At the present time things are very quiet in the motor field, although even now there is some movement, some of the first 1908 models having already been sold. The present dullness is not looked upon as being anything out of the ordinary as this is always a time when but little is being done in the way of actual sales. This season of the year is used always as a suitable opportunity to settle up the old accounts, inventory the stock in trade, and make general preparations for the season which is to come.

There is nothing unusual along these lines here at this time. There is, however, an unusual degree of activity attending the preparations for future business. Nearly every garage in the city is making

extensive plans for a season of prosperity which is freely predicted. A feature is that the garages are grouping in a large measure on Madison street, and before next season opens with a few exceptions all of the local storage places will be on this one street. The Jefferson garage has recently removed to its new quarters in the building formerly occupied by the Craig-Toledo, where it will occupy the place in conjunction with the White steamer agency. The Lichtie Automobile Co. now is installed in its fine new home on Madison avenue, where it occupies an imposing structure expressly designed to meet its needs. The building occupied by the White has been remodeled to meet the requirements of the business. The Holsman will occupy a new home now being completed on Monroe street.

At all the garages there is every evidence of implicit confidence in the future. Buildings are being refitted and enlarged, and new structures erected to accommodate the trade. A feeling of optimism is prevalent on every hand. "We have no fear of the future," said one of the most prominent motor car men in the city. "While of course we are not closing many sales it would be very strange if we were. We are doing some business in 1908 models and we are having many inquiries every day from people who will eventually buy. So far as prospects go I should say that there will be even more sales next year in Toledo than there were in 1907. I think the volume of business will not be more in dollars and cents, perhaps, for the call will be for cheaper cars. People who can buy the more expensive machines are pretty well supplied, and the heavy business here will be done next year in cars running from \$650 to \$2,000. There is a very lively inquiry for these cars now and, barring an absolute panic, which we do not anticipate, next year looks good for the motor trade in Toledo."

DETROIT WILL MAKE MORE CARS THAN EVER

Detroit, Mich., Dec. 24—With 1907, their most prosperous season, in immediate retrospect, the motor car manufacturers and retailers of Detroit and Michigan are looking forward toward a conservatively prosperous business in 1908 and are making their plans accordingly. In the face of the prophecies of financial stringency no plans for curtailment are being made in either branch of Detroit's most prominent industry. Instead, more cars will be built in Detroit during 1907 than in any other year of the industry—a fact in itself an ample guaranty of the faith of the manufacturers in their creations.

New retail establishments are springing up all along the row and these are being supplemented by a half dozen others, now under construction in various parts of the city. On all sides the belief is general that while 1908 may present conditions

which may tend toward lessened individual expenditures for cars, the demand for the cheaper grades will afford plenty of opportunity for the trade, while even those manufacturers who confine their output to the more exclusive types are confident that the motor car has come to stay and are laying conservative plans for next year, with all their resources in readiness to take advantage of the more favorable financial conditions which must assert themselves in due time.

This year Detroit produced in the neighborhood of 23,000 motor cars. In 1908 the plans of the various factories will, if adhered to, raise the total to the neighborhood of 35,000. While the increase is virtually confined to the lighter grades the manufacturers of larger cars are in many cases planning to put on the market virtually the same number as last year, while in one or two cases the output will actually be increased.

The attitude of the Ford Motor Co. is optimistic in the extreme. "Some people laugh at me when I tell them that our plans contemplate an output of 25,000 cars next year," says Henry Ford. "Yet that is the figure which we have determined to reach. We surprised them last year with the statement that we were going to turn out 10,000 runabouts, but we made good there and are in condition to do bigger things this year, if our diagnosis of the trade conditions is correct. We expect to bring out more runabouts than last year and will also center our activities on a light touring car constructed along similar lines. A light taximeter cab seems to be in considerable demand and we shall probably make 1,000 of these. We are reducing our output of six-cylinder touring cars from something over 800 to about half that figure, however, and will aim in this department merely to keep a little ahead of our orders." The Ford factory has been running 6 days a week with a full force of men ever since the designs for the 1908 model were finally settled upon.

The Brush Runabout Co. is another concern that believes 1908 will prove a great year for the light car and its 2,500 plays a substantial figure in the promised increase of Detroit's numerical output. The Maxwell-Briscoe-McLeod Co. reports that its 1908 orders are well ahead of the business of 1907 and the prediction is freely made at the local office that the year will be equal in amount of business with last season if not superior. The De Luxe Motor Car Co. entered the field too late last season to get thoroughly under way in time to take the hoped for advantage of the winter shows. The concern put out in the neighborhood of 100 high-powered cars this year. Next year it expects to double this number. The Packard Motor Car Co. built 1,126 cars this year. It had increased its facilities considerably to take advantage of the expected increased

demand for 1908, but has decided on a conservative basis for the year and will content itself with slightly bettering the 1907 record. At present the factory is running 4 days a week with a full force, but the program will be changed in a few weeks and the force put to work for the entire working week.

The E. R. Thomas Detroit Co. will equal its output of 1907 and is daily installing expensive machinery in the expectation of a radical increase in the following season. The Cadillac Motor Car Co., which was one of the first local concerns to correctly diagnose the conditions which featured the autumn of 1907, will market between 2,500 and 3,000 cars this season, chiefly of the lighter grades. The factory has resumed operations and the force is being steadily increased. At present 750 men are at work on the 1908 models, which is about half the regular force. The factory management reasons that the motor business, like any other, is affected more or less by trade conditions and has determined on a conservative policy for 1908. At present the orders now on hand are in advance of last year, though the early shows are given credit for a certain percentage of the condition. The E. R. Blomstrom Mfg. Co. is in the field with three models and expects to build 250 cars in 1908. This is a considerable increase over this season—the company's first year. The sales department is making agency appointments especially throughout the middle west.

Manager Benjamin of the reorganized Aerocar Co. announces that his concern expects to build 400 cars in 1908 and the factory is now running a large force of men. Radical innovations have been made in the price of output and while the company will feature medium-weight cars it expects to dispose of them rapidly. The Cartecar factory is running practically as many men as for 1907 trade and is using a considerable amount of new machinery which is enabling it to produce a much larger percentage of its output from its own factory. President Carter expects to see the sales equal those of this year.

At other Detroit factories substantially the same conditions prevail as those named. The manufacturers of light cars are increasing their output very materially as a rule, while heavier models are about holding their own in the estimate of the manufacturers whose names have been associated with that type.

It is a noticeable fact in the retail trade that few of the local distributors cling to one line of cars exclusively, as a considerable percentage of them always has done in the past. Aside from the factory branches which, of course, handle but the one line, the retailers have shown a decided trend to supplement their leading high-grade car with a line of lighter and cheaper ones. A marked feature also has been the increase in the number of agencies that handle electrics. A surpris-

ing percentage of the business in 1907 was done in these cars and the lesson was quickly learned by the agents who had confined themselves to gasoline-driven vehicles exclusively. The fact that the Anderson Carriage Co. has gone into the manufacture of electrics and will place in the neighborhood of 1,000 of them on the market this season also has tended to increase the interest in this type of vehicle, as Detroit had been up to the advent of this firm in the motor car industry, exclusively a gasoline town so far as manufacturing went.

A noticeable feature of the plans of the selling forces this year is the fact that they seem by common consent to be centering their efforts for new business on the west. More than one local factory found its New York connection last year the source of considerably more expense than income. The financial situation in that city is taken by the sales managers here to mean that the same situation is likely to prevail there for a goodly portion of the coming season.

The presence in Detroit of a large number of manufacturers of motor car parts and accessories makes this feature of the industry of no small amount of local importance. Nearly all of these factories are running, though but few of them are at present on full time. If the theory that 1908 is to be a year for light cars proves well founded a considerable number of changes are expected in this line before the season comes to a close, as a considerable number of them virtually confine their efforts to the fittings of the more expensive grade of cars. The added fact that the local factories are annually making a larger share of their own output, many of them having arranged to manufacture virtually their entire car under their own roof, has also tended toward making the business in parts one which has been changed considerably during the past season in the city of Detroit.

BUSINESS MOST SATISFACTORY IN BUFFALO

Buffalo, N. Y., Dec. 23—Inquiries among the various motor car manufacturers and dealers in Buffalo today elicited the information that so far as their total business during 1907 is concerned it has been very satisfactory. The trade during the first 9 or 10 months was excellent, so although business became quieter during the past few weeks on account of a general financial stringency throughout the country, motor car men of this city, in figuring up their profits for the entire year, really have no reason for complaints. In fact, Buffalo enjoyed a wave of genuine prosperity in all lines during the greater part of 1907, and this satisfactory condition was naturally reflected in the great volume of business carried on in the motor car trade. These pleasing results for 8 or 9 months therefore served to counteract in an ad-

mirable manner the tendency toward quietness that marked the trade at the end of the year. Another interesting feature has been the absence of failures in the motor car business in Buffalo during the recent stringency. While there have been a few bankruptcy cases in other lines, the motor car men of this city have had no such financial reverses in their ranks, and there is absolutely no indication that there will be anything but genuine prosperity during the coming year. In fact, orders for next year's cars continue to pour in, and the 1908 business promises to be a record-breaker. One reason for the bright prospects for 1908 is that many who showed a tendency recently to hoard their money are now circulating their cash freely in Buffalo and vicinity, thereby greatly relieving the situation.

On behalf of the E. R. Thomas Motor Co., of Buffalo, it was stated today that the past year had seen a remarkable development in the factory equipment of that plant. An extensive addition to the plant has been completed this year which is claimed to prove there has been an expansion of the company trade. Inquiries and orders are not less promising than in the corresponding period of a year ago. Members of the company feel that 1908 will be quite memorable for the great scope of the business done. As for 1907, one of the company's officials made the brief but significant remark: "We are very well satisfied." E. C. Bull, Buffalo sales manager of the George N. Pierce Co., said "The orders on hand are fully up to those of this time last year. While we do not notice any increase over 1907 there is no decrease. There have been many enquiries as to our new six-cylinder model. There has been a slight tendency to hold back orders till after the money market had become a little more settled, but there is every indication that next year will produce as good results if not better than 1907. We have recently added an extra story to our factory to accommodate the orders already received."

Another indication that the trade in 1908 will be very satisfactory is the success that is promised the motor car show to be conducted in Buffalo next March under the auspices of the Automobile Club of Buffalo. According to Dai H. Lewis, who has charge of the exhibition, the attendance and the number of exhibits at the coming show promise to be record-breaking. Nearly all the space is already taken up. It is also shown that there is a constantly growing demand for motor cars in Buffalo, as is evidenced by the fact that the membership of the Automobile Club of Buffalo has greatly increased during the past year. As there will undoubtedly be hundreds of new purchasers of cars in this city in 1908, more members will be received into the club, which will indicate an increase of sales in the local trade, it is believed.

Members of the Buffalo Automobile

Trade Association report that their organization is in a flourishing condition and promises to increase in strength during 1908. The members are all optimistic regarding next year's prospects.

BALTIMORE HAS AN ENCOURAGING OUTLOOK

Baltimore, Md., Dec. 21—The motor business generally in Baltimore during the past year was slightly better than that of 1906, according to the statements of the local dealers and agents. That the improvement was not greater than it was is blamed on the tightness of money during the latter months of the year, which caused a falling off to some extent in the selling line. The dealers, however, hold out bright hopes for a most successful year during 1908. And, judging from the many new agencies that have been opened the past month there is every reason to believe that there is good cause for this encouraging outlook. While there have been a number of changes the past year in the local business no failures have been reported. There is some talk of a new factory being opened up here in the near future, but no details are obtainable at this time. In speaking of the business of his firm, Howard W. Gill, president of the Motor Car Co., which operates one of the largest garages in this city, said: "Our business in volume during 1907 was equal if not a little more than during 1906. While in the last few months business has been very dull in the selling line, our garage, repair shop and accessory departments have been doing well up to their average for this season of the year. Members of the Mar Del Auto Co. are pleased with the condition of trade during the past year and hold out bright prospects for the approaching year. In a recent interview one of the head men of the firm said that "despite the tightness of money we have had an excellent business all along. One of our drawbacks has been the difficulty experienced in getting enough cars to supply our trade." Other dealers and agents give similar views. Among the trade changes of the year it is noted that the Winton Motor Car Co. supplanted the Baltimore Motor Car Co., and now looks after the Winton interests direct in this city. R. H. Williams is the local manager. E. A. Cassidy withdrew as a member of the accessory firm of Cassidy, Davy & Co. to become the general manager of the south for Monogram oils. The former concern now is conducted under the name of J. G. Davy & Co. The Stearns agency was opened here recently by E. L. Leinbach, formerly resident manager of the Hamilton Auto Co., which has the agency of the Stoddard-Dayton car. R. F. Kaehler and A. M. Eastwick, of Philadelphia, opened the Ford Auto Co. to handle the Ford cars. Other new agencies are: Lambert Automobile Co., representing the Maxwell; J. L. B. Wilhide, the

Atlas and Kisselkar; Matheson Automobile Co., the Matheson; Shaffer Mfg. Co., the Pullman; P. R. Reese, Jr., the Royal Tourist; Rice garage, the Crawford, Pennsylvania, Welsh and Rauch & Lange electric; Mar Del Auto Co., the Buick; French & McCormick, the Oldsmobile; Hamilton Auto Co., the Stoddard-Dayton.

INDIANAPOLIS PLEASED WITH YEAR'S BUSINESS

Indianapolis, Ind., Dec. 23—Indiana manufacturers and dealers are closing the year with a record of having done as much business in less than 10 months than was done all of last year. The year has been an important one in every respect to the motor industry of the state.

Touring cars have had a larger sale than ever before, the six-cylinder has had an introduction to the local trade that has left an impression designed to last, and the commercial vehicle trade has had its first steady advancement. In addition the runabout has found its way into favor more than ever as a utility vehicle among business men. About 1,700 cars have been sold in Indiana during the year, representing an expenditure of more than \$2,000,000. This of course, by no means represents the value of motor cars manufactured in the state, for the Indiana product goes all over the country. Without doubt fully 10,000 cars have been turned out in Indiana this season and at an average cost of \$1,200, a low average, by the way, in this state; the value of the product would be \$12,000,000. Indiana, which has long been among the leaders in the manufacture of touring cars and runabouts, also has gained a reputation as a manufacturer and prospective manufacturer of buggy type runabouts this year. Fully a dozen carriage and machine plants have either brought out or have planned to bring out vehicles of this type of motor car.

In Indianapolis the year has been an especially active one, marked by important developments in the industry from both the manufacturers and dealers' view point. The Premier Motor Mfg. Co. made the change from air to water-cooled engines, while the Nordyke and Marmon Co. spent some time in experimenting on a water-cooled model for the 1908 trade. The National Motor Vehicle Co. established and began the manufacture of its own four and six-cylinder engines during the year; the Overland Automobile Co. was reorganized and built a new plant, while the Marion Motor Car Co. also was reorganized and a new model brought out. This year also saw the introduction of the sightseeing business in Indianapolis.

Next year gives promise of being an eventful one. The Fisher Automobile Co. is planning to erect one of the largest garages in the west. It is predicted that six-cylinder touring cars will grow still more in favor and that the year will

mark a remarkable growth in the commercial vehicle end of the industry. Of course runabouts will come in for their part and these inexpensive little cars, with the more dignified rumble seated roadsters will have a big manufacture and sale, it is anticipated by the dealers. The business men of the town are much taken with the runabout idea and it is no uncommon sight to see these little two-passenger rigs shooting around the city carrying salesmen who find that this mode of transportation is cheap and the greatest time-saver known.

ST. LOUIS IS PROUD OF SEASON JUST ENDING

St. Louis, Mo., Dec. 23—St. Louis certainly has reason to be proud of its fine record in the motor world during the past year. The increase in the manufacture and sale of motor cars, especially commercial machines, since the beginning of the year is considered little short of marvelous. In 1906 the number of motor car licenses issued in this city was 1,124, while in 1907 the number increased to 1,528, a gain of over 400. This number probably would have been increased still more had it not been for the new state law which provides for registration with the state, and which further provides that any person who pays the state license and the license of his resident city or town need not pay a license in any other city through which he may pass. This, of course, has decreased the number of city licenses, as citizens living in the county who formerly paid the St. Louis tax now pay this to their home town. Even the city authorities have come to recognize the value of the motor car, as is shown by the purchase of a motor car for Chief Swingley of the fire department, and also the purchase of two cars for the health department.

MORE CARS THAN EVER SOLD IN YORK STATE

Syracuse, N. Y., Dec. 23—It is probable more motor cars were sold in central New York this season than during 1906. Proprietors of garages tell conflicting stories. Some say that their sales were at least one-third larger than in 1906, while others say there was a falling off. Viewed from the standpoint of profits, the season undoubtedly was not quite as good as that of a year ago, for there was a disposition on the part of buyers to buy as cheaply as possible, which cut down the profits materially. They not only bought cars more cheaply but supplies as well. The season for the H. H. Franklin Mfg. Co. was by far the best it has had since its organization. Circumstances, however, operated to bring about a large reduction in the size of the working force a few weeks ago. Anticipating a big season for 1908, work was started earlier than usual on the 1908 models. This buying of stock, together

with the financial stringency, necessitated a cessation of work to a large extent. The company, however, hopes soon after the first of the year to start running with full forces. Three hundred and fifty men are employed at the factory now, whereas the number employed before was in the neighborhood of 1,500.

DULL NOW ON COAST; OUTLOOK PROMISING

San Francisco, Cal., Dec. 19—In spite of the dullness in the motor trade that was the natural accompaniment of the stringency in the money market, the men who handle cars in this section are by no means blue over the outlook for the coming season. None will deny that for several weeks past there has been but little business transacted, although it is probable that most of the older and more soundly established houses have paid their way and a little over. San Francisco dealers were considerably handicapped in their early 1907 selling by inability to get cars through because of the very serious freight congestion. At a time when there was an extraordinary demand for cars, and when every machine that came through—no matter of what kind—commanded a premium, few of the agents had anything to sell. But, despite past troubles and present stringency, the general opinion here is that 1908 is going to be a first-class year. The signs of the end of the money crisis out here cannot be better shown than in the mining stock market operations, which during the past few days have resembled the boom times of a year ago.

No matter what the situation in the other parts of the country, the rebuilding of San Francisco has to go on. There are a very large number of men who are directing that work of rebuilding who must have motor cars to save their time. There is a vast amount of money being poured into the city in the work of reconstruction, and that money, through the medium of the army of high-priced mechanics, is findings its way into the hands of the mercantile class. With the prosperity of the latter there is being created a new lot of buyers. And so it is that San Francisco agents look forward to a most prosperous year.

What is true of San Francisco is true in a general way of all the rest of California and the Pacific coast. Northern California, which is generally tributary to this city, seems to be waking up. Outside of the larger cities, of course, the demand is mainly for cars of the moderate price. The inquiries come from general prospective purchasers as well as from agents. Things have been quiet in Los Angeles and the rest of southern California, but here again there are signs of a revival reported. The motoring visitors from Portland and Seattle and the other centers of the northwest tell the same story of a good, healthy outlook.



THE READERS' CLEARING HOUSE

PLANETARY TRANSMISSION

Kiel, Wis.—Editor Motor Age—Please define planetary transmission, and say if it is possible to strip gears in the same. Also state if there is a compound in the market which when applied to outer casings will protect and prolong the life of the rubber?—H. A. Kuenne.

A planetary transmission gear is one in which the driving and driven gears are carried on shafts placed end to end, and are in constant mesh with intermediate pinions carried by a surrounding drum or case. In the high speed a clutch gives a direct drive from the driving to the driven gears, the pinions, case, etc., revolving with the gears, so that there is no relative motion among them. For the low speed the case is held stationary, and the pinions become an intermediate transmission member communicating motion from the driving to the driven gears and shafts. The Ford, Reo, Maxwell runabout and a number of other small cars use this type of transmission. Motor Age knows of no such protective compound for the tires such as you describe. When a car is laid up for the winter, the axles should be supported on blocks and the tires deflated. Better yet, they should be taken entirely off and the rims sand-papered and painted if they are rusty.

ALCOHOL IN GENERATOR

Crystal, N. D.—Editor Motor Age—Kindly inform me through the columns of the Readers' Clearing House if there are any objections to the use of wood or denatured alcohol, equal parts, to take the place of pure water in a gas generator? I am hoping to find a solution that will work in a generator without freezing at 40 to 45 degrees below zero. I understand some are using it with success. Also kindly give me the address of the Twentieth Century Generator Co.—A. Heath.

There is no objection to the use of either kind of alcohol in a gas generator, other than the cost of the alcohol itself. If you use a wick feed generator, you will have to increase the feed by pulling out one or more strands of wicking, because the alcohol has no value so far as production of gas is concerned.

USE COIL WITH MAGNETO

Dorchester, Mass.—Editor Motor Age—Will you please tell me in the Readers' Clearing House if a magneto and battery with a vibrating coil or non-vibrating coil can be wired on with a three-point switch, so I can run first one battery, then cut out if I want to and run on magneto?—W. G. Merriam.

A magneto must always be used with the coil if—any—furnished by makers. It is

perfectly possible, however, to connect a magneto to one side of a switch and a battery and coil and the other side, and switch from one to the other as desired. The switch, however, should be arranged to short-circuit the magneto if the latter operates on either of the usual systems, known respectively as the Bosch and the Eisemann systems. By obtaining the switch from the makers of the magneto you will be sure of getting one suited to the purpose. One American magneto, the Holley, is arranged with an outside coil, so that either the magneto or the battery works through the same coil, and the switch is furnished on the coil.

POWER OF A PULLEY

Rogers, O.—Editor Motor Age—Will you kindly inform me if a pulley 3 to 4 inches long and of about the same diameter would have friction power enough to propel a motor car with a gear ratio of three to one and two to one? I have a speed change I am working on. Could you give me some idea of the amount of pressure it would require on this ratio to take a 1,500-pound car up all kinds of grades?—P. M. Crawford.

Motor Age judges from the letter that the pulley does not drive a belt but bears directly on its surface against a fiber or cork-faced friction wheel, and also that the speed of the pulley is twice or thrice that of the rear road wheel according to the speed change. If this assumption is correct, the pulley will be nowhere near capable of driving the car. If you could run the pulley several times as fast, the thing might be managed. You do not state the size of your road wheels, which is an important factor. Can you not arrange to run the pulley at the engine speed?

MORE ANTI-FREEZING

Crystal, N. D.—Editor Motor Age—Kindly inform me through the Readers' Clearing House what objectional features there are, if any, to the use of the following anti-freezing compound: Forty-five per cent wood or denatured alcohol, 5 per cent glycerine and 50 per cent water. What is the 5 per cent glycerine for? Why not half and half? How many degrees below zero will either one of the two compounds stand without freezing? I have been using the first-named compound for several days, and it has given perfect satisfaction. As far as cooling, it keeps my engine cooler than on water only. The first test I gave it was a 25-mile run. Starting out with about 3 inches of the compound in the bottom of my water tank, which holds 2 gallons when full, at the end of the 25-mile run I still had from 1½ to 2 inches in the tank. I was afraid that the evaporation would be enormous, and that it would cost

too much to use it all the time—A. Heath.

Motor Age does not know of any special virtue in the 5 per cent of glycerine in the compound you are using. Equal parts of alcohol and water would answer fully as well. Denatured alcohol can be had for from 50 to 60 cents per gallon, and therefore costs no more than wood alcohol. It is also quite as effective. The solution you name will resist temperatures as low as 35 degrees Fahrenheit below zero, and is possibly stronger than you need. A mixture of one part alcohol, one part glycerine and four parts water will freeze at about 15 degrees below zero. A mixture of one part alcohol and two parts water will freeze at about the same temperature. It is not economical to use more alcohol than prudence requires, since it evaporates faster than water and costs something to replace. It is desirable to have the tank or radiator as full as possible, in order to keep down the temperature and thereby reduce evaporation.

CHAUFFEUR'S POSITION

Roswell, N. M.—Editor Motor Age—I noticed in Motor Age some time ago an inquiry as to obtaining a position as chauffeur. As the writer had tried advertising without results you advised making application to agencies in some of the larger cities. As none of the names of these agencies appear in the columns of Motor Age, I would like to have you give me the address of several in the west and middle west, so I can make application for a similar position.—Louis Swartztrailer.

If Mr. Swartztrailer will read with care the news in the pages devoted to makers and dealers and also to the page under the heading of brief business mention, he will be able to secure all the agents' names he desires, inasmuch as the names of the more prominent agents appear in these pages from time to time.

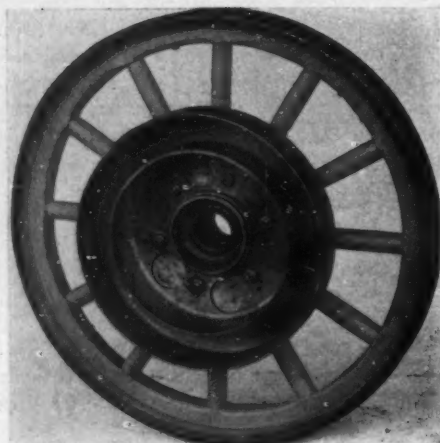
WRITE TO PATENT OFFICE

Roswell, N. M.—Editor Motor Age—Can you tell me whether there is a planetary transmission in the market or incorporated in any car now built where the gears are all spur gears and the casing or support for the compound pinions are mounted on the engine shaft and revolve with same, one of the central gears to be fast to the spocket, the other two to have hand brakes for slow and reverse, the high obtained by locking all together?—J. L. Spencer.

In view of the large number of types of planetary gear, and of the fact that the manufacturers seldom described them with any particularity in their catalogs, Motor Age thinks it would take a search through the patent office files to answer this question. Possibly some of its readers can give information.



MOTOR CAR DEVELOPMENT



CLEVELAND DOUBLE BRAKE DRUM

DEVOTEES of the motor car who have attended the show circuit have had the opportunity of seeing the 1908 Cleveland car, which is not as heretofore a product of the Garford factory, but an out-and-out Cleveland affair, manufactured by the Cleveland Motor Car Co., with head offices at 1659 Broadway, New York. The factory work, however, is done at Milwaukee, Wis. Apart from the many differences in connection with the manufacture of the 1908 car as compared with its predecessors, there are not a few other points of difference. First, the make-and-break ignition has been discontinued, a high-tension one with double current supply from either magneto or battery being used; second, the cone flywheel clutch is replaced by a patented disk clutch operating in oil, the disks of which have angled or coned surfaces which are the engaging parts; third, this clutch, instead of being housed within the flywheel or within a barrel continuation carried on the flywheel, is housed in a separate compartment located in the forward end of the gear box; fourth, owing to the coned nature of the engaging portion of the clutch disks the company asserts that any kind of oil or grease can be used for the clutch, even common axle grease having proved efficacious; fifth, in the rear of the four-speed and reverse gearset is a large-diameter tooth wheel in which plays a pawl that acts as a safety device against running backward on hills should the brakes fail to work; sixth, the frame side members are dropped in front of the rear axle to lower the center of gravity of the car body; seventh, the two sets of brakes are expanding members acting on a pair of concentric drums on the rear wheels, one set of drums 13 inches in diameter and the other set 16 inches in diameter, the friction surfaces in both being manganese bronze against steel; eighth, two clutch disengagements are provided so that

1908 CLEVELAND

should the pins securing the clutch pedal to the shaft shear off there is a connection with the emergency brake whereby the clutch could be disengaged; ninth, the motor used is of the four-cylinder style, with cylinders cast in pairs and valves carried on one side, and having in its crankcase an oil reservoir, as used in the majority of Continental engines, out of which the oil is pumped to the several motor parts, after which it returns by gravity to the crankcase proper and is filtered into the reservoir, thereby being ready for recirculation through the motor cylinders and bearings.

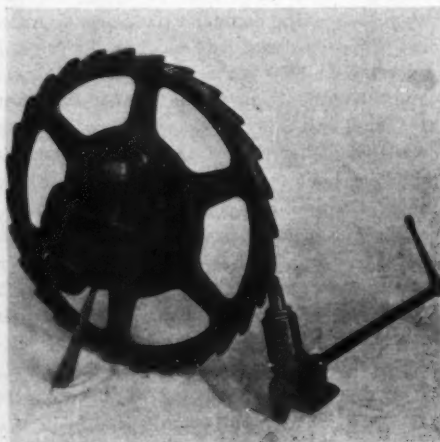
The motor cylinders have a 5-inch bore and 5-inch stroke and besides the casting of them in pairs with integral water jackets and valve chambers, have such conventionalities as enclosed half-time gears at the forward end; demountable lower half of crankcase, leaving the crankshaft in position; water pump and magneto on one side, with intake and exhaust manifolds and carbureter opposite, and ordinary water circulation pipes are noted. Both ignition systems are of the jump-spark type, one consisting of a high-tension magneto and the other being a distributor and single vibrating coil, the current being supplied by storage battery. A double set of plugs is used, these being placed over the valves. An aluminum-bladed bronze hub, ball-bearing fan is mounted close to the rear of the radiator, the hub forming a cup, so no dust can get into the ball bearings. The fan is driven by a flat belt from an aluminum pulley at the forward end of a horizontal gear-driven shaft, the rear end of which drives the centrifugal pump and magneto. The dash is mahogany with brass edges, while the floor boards are aluminum, being supported by an aluminum casting, which rests on the steel



DOUBLE EXPANDING CLEVELAND BRAKES

frame and rigidly braces the dash and also forms a solid support for the steering column. The spark and throttle levers operate on an aluminum sector on the steering wheel, each lever being provided with a small hard rubber thumb button, which releases it when the lever is grasped, but which locks it in position when the hand is removed. The steering wheel is of large diameter, the arms being of aluminum channel section and having a continuous integral rim. The rear ends of the chassis side frame members are bent upward into an arch, so in case of going over an excessive bump there will be no chance for the frame hitting the axle and no necessity for bumpers. The gasoline tank is of 22 gallons capacity, made of copper and placed under the front seat, pressure feed being used, although this is only necessary when the tank is almost empty. A large strainer is interposed in the gasoline line between the tank and the Schebler carbureter. The tank-filling hole is about 6 inches in diameter and the cover is held by a removable yoke, making it not only easy to fill the tank but possible to clean it out thoroughly.

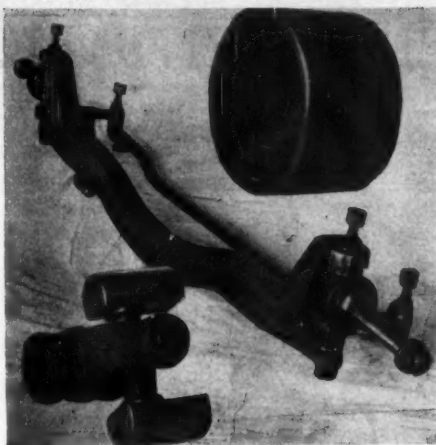
The clutch consists of fifty-two effective steel plates of 1-16-inch thickness, made of high carbon ductile stock; the peculiarity of these plates is, that they are stamped into a conoidal shape, the surface being slightly different from the true cone, as it is somewhat curved. This arrangement causes the plates to engage very gradually and when released the spring of the curved portion of the plates separates them regardless of the kind of lubricating oil used, the company claiming that the clutch will disengage as readily when run in heavy oils or even greases as when the lighter oils are used. Under running conditions, the same lubricant, consisting of one-half heavy oil and one-half grease, that is used in the change-speed gear is used in the clutch. The rockers for en-



THE HILL SPRAG ON CLEVELAND CAR

gaging and disengaging this clutch are provided with steel rollers at the ends, the plates being engaged by a helical center spring, of approximately 300 pounds tension, the tension being adjustable. This clutch is self-contained, and gives absolutely no end thrust except for the period when disengaged, at which time the end thrust of the spring is taken on an F. & S. annular ball bearings. The change-speed gear is of the four speed and reverse sliding type, being operated on the selective principle by a lever working in an H slot. The direct drive, however, is on the third speed, with accelerated tail-shaft on the fourth. This arrangement permits of the use of the direct drive practically all the time and also allows of an extremely high speed, with the tail-shaft running faster than the engine when desired. Annular ball bearings are used and the shafts are milled, forming four integral splines for the sliding gear members. At the rear of the change speed gear case is a 14-inch wheel, with heavy ratchet teeth so arranged that it can be engaged by a plunger pawl, the device taking the place of a sprag. The base of the pawl is a sliding fit into a cylinder, thus forming a sort of dash pot. This pawl is operated by a small heel button, a slight pressure of which is sufficient to engage it, and thus prevent the car from backing downhill, or the car can be retained on a steep hill when standing.

The cardan shaft is provided with two universal joints; these are enclosed in dust and oil-tight housings. The forward part of the housing has a spherical rear end over which fits the rear portion of the housing, this rear end being provided with an internal annular recess containing a strip of felt. This felt comes in contact with the spherical portion of the forward part of the case, thus making a dust-tight but flexible joint. The rear universal joint is so arranged that the driving effort is transmitted by the outer ends of arms fitted with bronze shoes, which are free to slide longitudinally in suit-



CLEVELAND AXLE AND UNIVERSAL

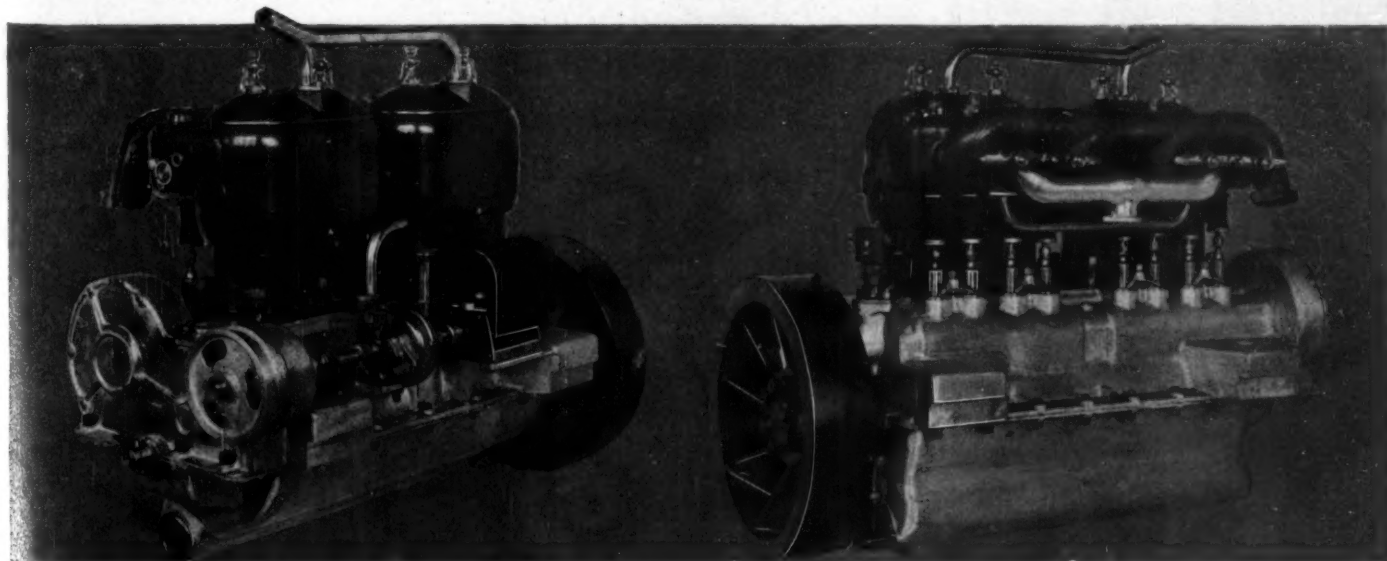
ably shaped semi-circular grooves of considerable length in the outside casing, which is fixed to the bevel pinion shaft. The casing is of steel and has a long hub taper keyed to the integral bevel pinion shaft, the shaft pinion being supported both front and back by F & S bearings.

An adjusting device is provided so that the bevel pinion and its shaft can be moved slightly in a longitudinal direction, bringing the teeth into or out of mesh with the large bevel gear. This is accomplished in the following manner: The annular bearing in front of the bevel pinion is held against a collar on the bevel pinion shaft on one side and a nut on this shaft at the other side, so that if this bearing is moved in either direction the bevel pinion and shaft must move with it. On the exterior of the annular ball race are threads into which or upon which an outside band or collar is screwed. This collar cannot move forward or backward, as it fits into grooves in the rear axle housing, thereby by simply turning it on the threads the bearing is forced in either direction as desired. The collar is prevented from rotating and is retained rigidly in position by means of a tight-fitting yoke, which presses upon it when bolted in position. This collar also bears on the outside an-

nual ball race, thus clamping the combination rigidly in position, but an adjustment can easily be made by simply loosening the yoke and turning the collar.

A differential of large-sized bevel gears of 5 pitch is used, well supported in annular ball bearings. The rear axle is of the floating type, driving the wheels by means of lug clutches at the ends. This axle is also well braced by a truss rod, $\frac{3}{8}$ -inch in diameter at the smallest section and larger where threaded for the turn-buckles. An I beam torsion rod is provided and radius rods are also fitted, their rear ends being revolvably mounted upon split bronze bushings, which are clamped around the steel rear axle housing, thus bringing all the wear on the bushings and not on the housings. These bushings also serve for the swivel mounting of the rear spring seats. The front axle is an I beam drop forging without weld. The steering knuckle pivot is mounted on ball bearings and the cross link or tie rod is in a protected position at the rear of the front axle. The steering gear is of the screw and nut type.

The brakes are both internal expanding in separate drums on the rear wheels, the external brake being 16 inches in diameter by 3-inch face. These brakes are both metal to metal, the drums being pressed steel, while the bands are manganese bronze, cam operated in the usual way. A single-tree type of equalizer is used on the foot brake, which is the outside band; the other brake is operated by the usual side lever. The muffler is constructed entirely of pressed steel and is provided with a cut-out operated by a short pedal. All points where there is any motion whatever are provided with grease cups and the brake rods and spring eyes are fitted with spring oilers. The muffler rod, sprag-operating rod, brake rods, etc., are arranged so that they have a direct pull and are not put in on the bias. The car is fitted with roadster, touring car or limousine bodies, all built along conventional lines, and having the 1908 finish.

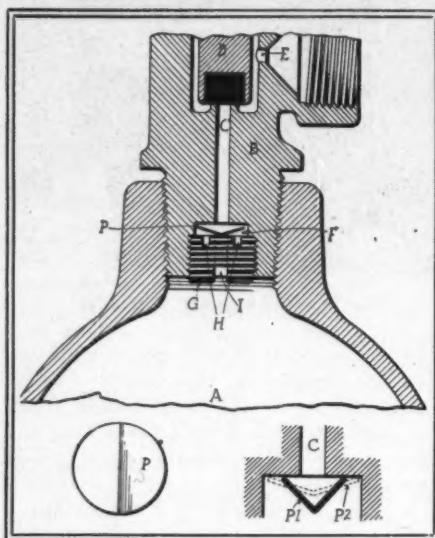


LEFT AND RIGHT SIDES OF MOTOR USED IN CLEVELAND CARS WITH MAGNETO ON THE LEFT REAR

DEVELOPMENT BRIEFS

AIR CARRIED IN BOTTLES

The Michelin air-bottle is a new compressed air tank for inflating tires which is manufactured by the Michelin Tire Co., of Clement-Ferrand, France. It weighs less than 9 pounds and contains 450 liters, 475 gallons, of air—compressed to 150 atmospheres, 2,120 pounds, which is sufficient for eight or ten large-sized tires. The air-bottle may be carried on the car frame by a couple of brackets or in a box specially designed for it. Two of the advanced features of the tank are: First, its great air capacity with a weight of less than 9 pounds; and, second, its simple outlet valve—termed *detendeur*—which can be produced anywhere. The air contained in the tank A cannot escape through the outlet E and thence to the tire except the plug D, mounted on the tube C, is unscrewed. The air passage is then by way of the two small channels H through C and out by E. The small disk or circular steel plate P, which is slightly coned, plays an important part in that if the pressure in the tank is high the disk is flattened against the head of the chamber in which it is lodged, permitting only a limited amount of air to filter through. As the air pressure within the tank diminishes the disk assumes its normal coned contour, thereby passing more air. By this arrangement a constant flow of air to the tire is obtained irrespective of the tank pressure. This flow is claimed to be sufficient to fill a tire in 3 minutes. Should the cock be opened too suddenly when the tank is filled the disk is immediately flattened and regulates the air flow. A pres-

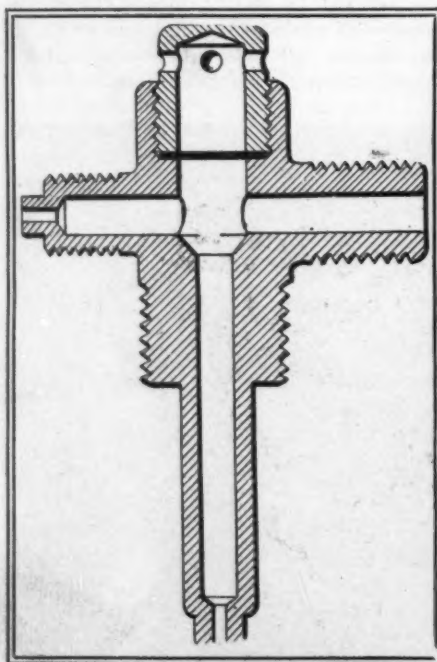


MICHELIN AIR BOTTLE'S VALVE

sure controller is fitted to the tank and provisions are made for automatically shutting off the air when the tire pressure exceeds 17 pounds. This is provided for by the paper washer, which will blow out at 17 pounds' pressure, allowing the air to escape through an opening. A new washer can be quickly inserted. An independent indicator is provided, to be screwed on at I in order to gauge the contents of the tank. A printed table pasted onto the base of the tank indicates how many tires of a given size can be inflated with a given quantity of air.

MAXIM NEARLY READY

H. P. Maxim, recently chief engineer of the Electric Vehicle Co., and T. W. Goodridge, formerly general manager of the Studebaker Automobile Co., have nearly completed the new model of the Maxim-Goodridge light electric victoria phaeton which will be manufactured in Hartford, Conn. The chassis is of pressed steel with cross members secured to the main frame without the use of rivets and the main members not weakened by excessive drilling. The sills of peculiar design are covered by patents. Another feature of the vehicle is that all the weight is suspended above the springs, which makes it possible to use solid rubber tires without danger to axles and pivots. When purchasers desire, a solid rubber-tired car the twin type equipment will be employed. The spring suspension is novel and is designed to overcome road stress. Another feature is that when the vehicle is occupied the weight is distributed evenly over both axles. The wheelbase is generous and the control differs wholly from anything at present used on a light electric. There are no gears in the entire car aside from the differential as employed in all cars.



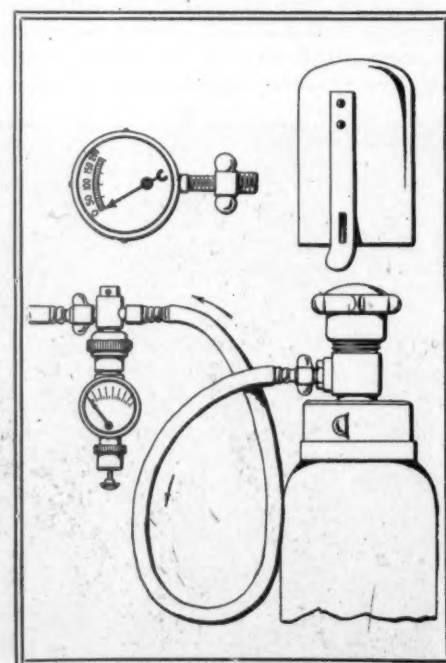
MICHELIN AIR BOTTLE PART

SPLITDORF HAS A NEW ONE

C. F. Splitdorf, New York City, has brought out a new spark plug designed especially for small air-cooled motors and motor cycle engines. This plug is made by winding sheets of mica in the form of a taper bushing. This bushing is inserted into a taper hole in a steel bushing, the taper hole conforming to the mica winding. It is then forced tight by a tapered central electrode. This central electrode is forced below the end of the mica bushing $\frac{3}{8}$ inch, thus forming an insulative surface of $\frac{3}{4}$ inch, the walls of mica being $\frac{1}{8}$ -inch thick. In addition to this a porcelain bushing is used to insulate the outer shell of the main bushing, which increases the insulating surface to $1\frac{1}{4}$ inches. By the use of this large insulating surface the resistance to soot deposit is so great that the greater body of the current will take the gap instead of shunting through the soot surface. The porcelain being held by soft gaskets, no strain comes on it from the expansion of the metal parts. Another feature of this construction is the elimination of any great amount of gas from the chamber of the plug, thus preventing excessive heating of the insulation.

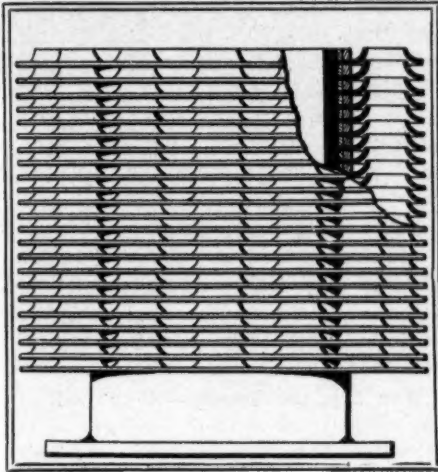
HAS A NEW LEATHER

The American Leatherette Mfg. Co., Buffalo, N. Y., announces a new type of motor car leather, the manufacture of which is based on chemical lines and claimed to be widely different from the present artificial leathers. It is faced with leather on both sides and eliminates the extra lining.



MICHELIN AIR BOTTLE COMPLETE

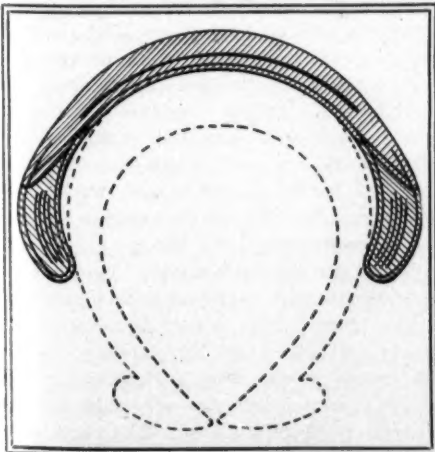
CURRENT MOTOR CAR PATENTS



SAGER'S AIR-COOLING

Tire Tread—No. 871,575, dated November 19; to W. T. Dorgan, Peoria, Ill.—This tire protector of practical semi-circular cross section is adapted to fit over the tire tread and be held there by the natural inflation of the tire, mechanical fasteners not being used. The tread is a combination fabric and rubber covering and is made with oval-shaped beads on each edge, these beads having their surface, which rests against the tire, shaped to correspond with the contour of the tire, so that the bead grips the tire casing and thereby holds the tread in position.

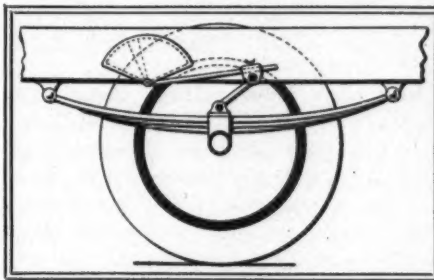
Air-Cooling System—No. 871,636, dated November 19; to J. H. Sager, Rochester, N. Y.—The outer surface of the cylinder wall is turned smooth and closely fitted over it is a series of circular flanges, each flange having several short vertical tubes rising from its surface, so that as flange after flange is placed in position these short vertical tubes are aligned and form ventilating chimneys in the flanges, each chimney extending from the lowest to the highest flange or, in other words, from the bottom to the top of the cylinder wall.



DORGAN'S TIRE TREAD

Double Carbureter—No. 871,741, dated November 19; to T. L. Sturtevant, Quincy, Mass., and T. J. Sturtevant, Wellesley, Mass.—This patent covers a combination of two carbureters or even more than two, and all of which carbureters deliver their mixture to a common expansion in which is a many-way valve by which the mixture can be taken from either one of the carbureters or from all at the same time. The apparent aim of the patent is to achieve the same object as when one carbureter is made with two spraying nozzles and two throttles. This carbureter, however, has two float chambers also.

Demountable Wheel Rim—No. 871,460, dated November 19; to E. D. Valentine, Akron, O.—On the wheel rim is a permanent rim with a clincher flange on one side only. The part of the rim resting on the felloe has its upper surface cut away and has a series of short radial pins projecting over therefrom. The demountable rim is practically a duplicate of the rigid rim except that its flat part has its inner sur-

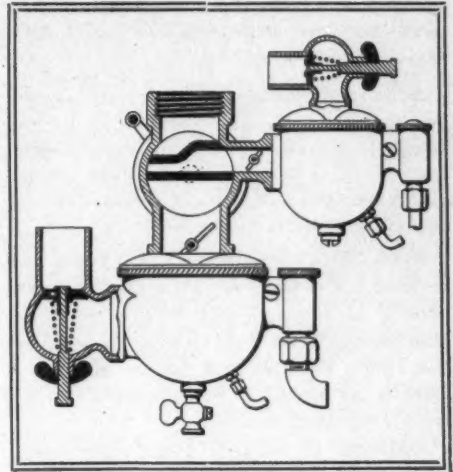


DUTRIEUX'S SHOCK ABSORBER

face cut away and carries therein a series of circumferential angular slots for engaging the radial pins in the rigid rim. When positioning the demountable rim it takes a slightly circumferential movement as it goes over the rigid rim until finally in position. Once in position a threaded radial pin holds the halves of the rim together.

Bevel Transmission Gear—No. 871,337, dated November 19; to J. G. and C. D. Hawley, Stratford, Ger.—On the rear end of the propeller shaft is a series of three or more sliding bevel pinions; and on the axle shafts are series of opposing bevel ring gears. Arrangements are provided for sliding the bevel pinions on the drive-shaft and also moving the bevel ring gears on the axle shafts into engagement with them to give different forward and reverse speeds.

Shock Absorber—No. 871,329, dated November 19; to A. Dutrieux, Le Quesney, Fr.—Attached to the side frame member of the car is a sector-shaped casing within which is a swinging pallet with a number of passages in it. A yielding plate is

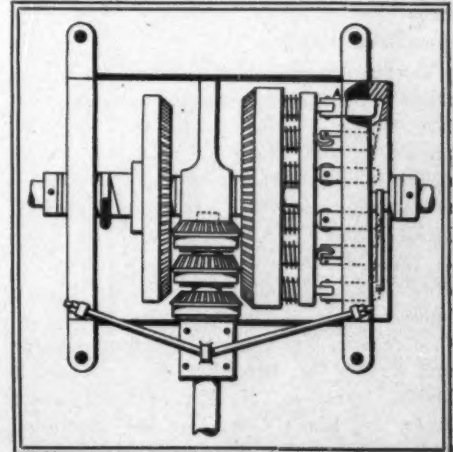


STURTEVANT'S DOUBLE CARBURETER

secured to the pallet near its center of movement and is provided with holes opposite some of the passages in the pallet, but closed opposite other passages. Means are provided for connecting the plate to the pallet whereby the latter is caused to swing in correspondence with the bending of the former. The pallet in addition has a spring-controlled safety valve and linkage connection with the car axle.

Variable Speed Gearset—No. 872,952, dated December 3; to F. Markgraf, New York city—This gearset has two parallel shafts on one of which is a set of four rigid gears and on the other a set of four sliding gears intended to mesh respectively with the gears on the other shaft.

Auxiliary Spring—No. 871,920, dated November 26; to A. Falkenhainer, St. Louis, Mo.—In connection with a full elliptic spring is a conical spiral spring with the large coil clipped at one side to the spring in front of the axle and with its opposite side, or end of the coil, arranged to slide against the spring leaf. The top of the spiral is intended to bear against the top half of the spring with the vehicle under load.



HAWLEY'S BEVEL GEARSET



AMONG THE MAKERS AND DEALERS



Pratt With Buick—J. Elmer Pratt, who recently resigned from the Cadillac company, has been appointed director of sales for the Buick Motor Co.

Benz in America—The American agency for the Benz car has been taken by the Bergdoll Motor Car Co., of Philadelphia, Pa., which is to open a New York branch and which has secured exhibition space in the salon show in the garden.

Buck With Gearless—D. G. Buck has severed his connection with the Matheson branch in Chicago and is now with the Manhattan Motor Car Co., handling Gearless cars. The Gearless factory will build Buck a racing car to be completed in time for the Ormond races.

Addition to Stearns Plant—The large new addition to the factory of the F. B. Stearns Co., Cleveland, O., is now completed and men and machinery are rapidly filling up the large rooms. This addition has been needed for some time, and now that it is completed it will afford great relief to the factory, some departments of which have been badly crowded.

Fisher Company Growing—One of the finest garages and sales rooms in Indianapolis and possibly one of the largest in the west is to be built within a few weeks by the Fisher Automobile Co., of Indianapolis, which has outgrown its present quarters. The building will be a three or four-story fire-proof structure, and the ground for it has already been purchased. It is probable it will be occupied early in the spring.

Chase to Build Cars—It is likely that a motor car factory will be located in Minneapolis next season. A. F. Chase, formerly of that city, and more recently the manager of the Chicago business of the Maxwell-Briscoe-Chase Co., has disposed of his interests in the latter concern, and will return to Minneapolis. He will commence work on the factory in the spring. Mr. Chase will manufacture a small runabout to be sold at a low figure, and he hopes to have the car on the market in reasonable quantities within a year.

Corbin Agencies Appointed—The constant extension of the business of the Corbin Motor Vehicle Corporation is illustrated by the continued additions to its agencies, among the more important representatives recently established being: Reese Motor Car Co., Cleveland, O.; Covey & Wallace Motor Co., Portland, Ore.; Pacific Coast Automobile Co., Seattle, Wash.; Inland Auto Co., Walla Walla, Wash.; B. C. Bernard, Troy, N. Y.; Carlton Garage and Repair Co., Brooklyn, N. Y.; Clark & Davis, Syracuse, N. Y.; Wirick-Bennett Auto Co., Sioux City, Ia.; Bell Brothers, Stamford, Conn.; Bridgeport Auto Co.,

Bridgeport, Conn.; E. H. Towle Co., Waterbury, Conn.; Pyramid Motor Car Co., Danbury, Conn.; New Haven Auto Corporation, New Haven, Conn.

Buffalo Trade Officials—The Automobile Trade Association of Buffalo has elected the following officers for 1908: President, J. A. Cramer; vice president, J. B. Eccleston; treasurer, John Gibson; secretary, Dai H. Lewis; executive committee, G. H. Poppenberg, E. C. Bull and C. B. Penney.

New Shock Absorber—The Hartford Suspension Co., New York, announces a new Trauffault-Hartford shock absorber to be known as the Junior. It will be reduced in price, and is intended for the equipment of the smaller runabouts of the Ford, Maxwell, Mitchell and Cadillac type.

Receiver for Colt—An involuntary petition in bankruptcy was filed in New York Saturday by the Colt Runabout Co. in the United States district court on the application of creditors, with claims as follows: The Frank Ponsby Co., \$1,300 for advertising; Robert Bosch, \$400; Reliable Radiator Co., \$114. Transfer of assets is alleged. This company was an exhibitor at the Grand Central palace show of a six-cylinder runabout.

Northern's New Chicago Agent—The Northern Motor Car Co. has just closed agency contracts with the Chicago Vulcanizing Co., of Chicago, Ill., which will put up its sign in the near future in the motor district under the name of Northern Automobile Co. and will represent the Northern in Chicago and in the larger portion of Illinois. Other agencies just closed are the Oklahoma Motor Car Co., Oklahoma City, Okla.; Humphreys, Schloot & Co., Linton, Ind.; C. J. Layton, Danville, Ill., and H. C. Grisingher, Santa Cruz, Cal.

New Quaker Garage—The big new four-story concrete-and-steel garage and salesrooms of the Keystone Motor Car Co. at 216-218-220 North Broad street, Philadelphia, 53 by 200 feet, opened for business on Tuesday of last week. The future Quaker City home of the Packard and Buick is pronounced by experts to be the finest bit of special-purpose architecture in the country. The salesrooms which extend across the entire Broad street front have a clearance from floor to ceiling of nearly 40 feet, the ceiling being studded with myriad electric globes. The concrete-mosaic floors are set off with handsome Tabriz rugs, while the furniture is the heaviest mission style. Back of the salesroom is the 53 by 150-foot garage, with rear entrance. Business offices, retiring rooms, chauffeurs' quarters and locker rooms occupy the second floor. The third floor, which is one immense room extending the entire length and breadth of the build-

ing, is used for storage purposes, with a complete machine shop occupying the north and south sides. On the fourth floor is a thoroughly-equipped stock room.

Joins Rambler Force—D. J. Canary, formerly of Pardee & Canary, has become associated with Thomas B. Jeffery & Co. and will for the present be located at the Rambler Chicago branch.

Two More Surrender—The Munson Steamship Co. and the Quaker Steamship Line are the latest companies to admit gasoline vehicles to their piers as a result of the campaign of the New York Automobile Trade Association.

Now Has the Stearns—E. L. Leinbach has resigned as resident manager of the Hamilton Auto Co., of Baltimore, which has the agency in that city for the Stoddard-Dayton car. Mr. Leinbach will devote his time in the future as the Baltimore representative for the Stearns car. This is the first time the Stearns has been represented in the Monumental City.

Kansas City Show—The annual Kansas City show will be held in Convention hall, Kansas City, Mo., the week of February 3-10 under the auspices of the Automobile Dealers' Association of Kansas City. Convention hall is one of the largest public buildings in the United States, with a floor space almost equal to Madison Square garden in New York or the Coliseum in Chicago.

Bergdalls Plan a Show—When the Bergdall Motor Car Co., of Philadelphia, gets into its new salesrooms and garage at 323-325-327 North Broad street in January it will have a house-warming in the nature of a show, where its complete line—the Imperial, Benz, Welch and American Berliet—will be shown. The agency for the last-named car was secured by the Bergdalls during the past week, and rounds out one of the most representative lines to be found along the Quaker City's gasoline row.

Thompsonville Plant for Sale—It seems to be the policy of the Pope Mfg. Co. and its receivers to dispose of all its real estate not actually needed for carrying on its business. As an illustration, there is now advertised for sale the Thompsonville plant of the company, which was formerly occupied by the Lozier bicycle works and of course fell into the possession of the Pope people when the American Bicycle Co. was put out of business. The shop is of good size and equipped with boiler and power plant. The factory is midway between Springfield and Hartford and beside the tracks of the New York-Boston route of the Consolidated railroad. Shipping facilities are therefore good. The plant is in good shape. For some time it has been

occupied by tobacco dealers, who are active only a couple of months in the year. In the meantime the building was used for little more than a storehouse.

Adds Knox to Line—The Foss-Hughes Motor Car Co., Broad and Race streets, Philadelphia, which represents the Pierce-Arrow, Cadillac and Baker electric in the Quaker City, has just announced its acquisition of the Knox commercial car agency.

Baltimore Changes—The Shaffer Mfg. Co., 408 and 410 North Calvert street, Baltimore, Md., has the agency in that city for the Pullman car. J. L. B. Wilhide, 2329 Madison avenue, has taken the agencies in Baltimore for the Kisselkar and the Atlas. He also retains the agency for the Frayer-Miller.

Organizes Bus Company—A company which will conduct a passenger and freight line business between Buffalo and the Tonawandas, Niagara Falls and Lockport has been formed. The company will be incorporated at an early date, when the names of the directors will be announced. Ten motor cars will be used at first and more will be added as the business increases.

Just Too Late—Loyal C. G. Tabor, of Syracuse, N. Y., after working 3 years on a device for the use of acetylene gas to propel motor cars, has received word from the patent office that P. C. Avery, of Milwaukee, was 3 weeks ahead of him and had taken out a patent on the same principle as that of Mr. Tabor's. The work of Mr. Tabor had been followed by the engineers of the Franklin company, who themselves have been experimenting with substitute liquids, particularly alcohol.

Monarch Plant Ready—President and General Manager T. A. Quinlan, Jr., of the Monarch Motor Car Co., announces the formal opening of the new factory of that company at Chicago Heights, Ill., January 2, 1908. He also announces the appointment of Paul Symonds to the position of sales manager of that company. One of the features connected with the new factory will be the testing track which is being built in the adjoining grounds covering an area of approximately 4 acres. This feature will enable the cars to be thoroughly tested on the road even during the most severe winter weather.

Babcock Back From Europe—Four weeks from the day he left Buffalo, F. A. Babcock, president of the Babcock Electric Carriage Co., returned to that city, having in the interim sailed to Europe, spent 2 days at the Olympia show in London, crossed to France and spent a week at the Paris salon, returning on the Oceanic. Mr. Babcock declares that one fact that impressed him forcibly was the absence in both shows of electric cars of the runabout type. He thinks that there is a great field for the small type of electric both in England and France. At the Paris show Mr. Babcock says he found the demand was greatest for small cars, those of 18-25 horsepower. In the electric field it was

found that only landaus, landaulets and broughams are used, and they are almost entirely for public hire.

Brennan Expanding—The Brennan Motor Mfg. Co., of Syracuse, N. Y., has purchased what is known as the old Phoenix Machine Co.'s plant adjoining its present property. The new plant will be used for the manufacture of gasoline engines and parts.

Spaldings Will Move—A. G. Spalding & Brothers, Philadelphia representatives of the Stevens-Duryea, will about January 1 remove from their present temporary quarters opposite the First regiment armory to a greatly enlarged plant, at 510-512 North Broad street. F. W. Eveland is now manager of the agency.

Addition to Quaker Colony—The latest addition to Philadelphia's motor facilities is the Park garage, just opened in the old market building at the southwest corner of Twenty-second and Spring Garden streets, only three blocks from Fairmount park, and a few yards from the new boulevard now in course of construction from the city hall to the park. The new garage has been floored throughout with cement, and has all the facilities for the care and rapid repair of motor cars. Harry Steber, who has had much experience in the management of similar establishments, is in charge.

Plant for Spokane—Announcement is made that N. C. Gauntt has arranged for the removal of his plant from South Bend, Ind., to Spokane, Wash., where he will build his new cars—four and seven-passenger six-cylinder 70-horsepower machines. He will also build a light roadster of three and five-passenger capacity. Machinery has been bought for the new plant, which will be in operation next summer, when it is purposed to introduce the car into all parts of the United States. The first cars of the Gauntt design will be built at South Bend and will be ready for demonstration in the west the middle of January, it is expected.

More Alcohol Tests—Another test of the practicability and economy of alcohol as a fuel is likely to be made by H. A. Grant, in a trip from New York to Boston. A 40-horsepower Studebaker car has been selected for the trial. The Studebaker company has agreed to put a 40-horsepower Studebaker seven-passenger touring car at Mr. Grant's disposal for the test. The tests made last year proved conclusively that alcohol was entirely practical as a motor fuel, and better results will be looked for in the present trip, as the carburetor of the Studebaker is especially adapted for the use of alcohol. In a conversation on the subject Mr. Grant said: "The plan at the present time is to drive the car over the roads fully loaded. If the test proves as satisfactory as I anticipate, the engine will be reconstructed to handle alcohol in as economical a manner as possible and the results of these tests made public. One difficulty experienced in the test last year was in not being able to run

the engine hot enough. I believe, however, I can overcome this by using some of the crude oils in the cooling system, thus allowing the motor to run hotter and yet well within the bounds of safety."

Pelletier Quits Ford—E. Le Roy Pelletier has resigned his position as advertising and publicity manager of the Ford Motor Co. and announces his intention of moving to New York and taking on similar work for a select line of makers. His resignation was due, he says, solely to a desire to broaden his business connections.

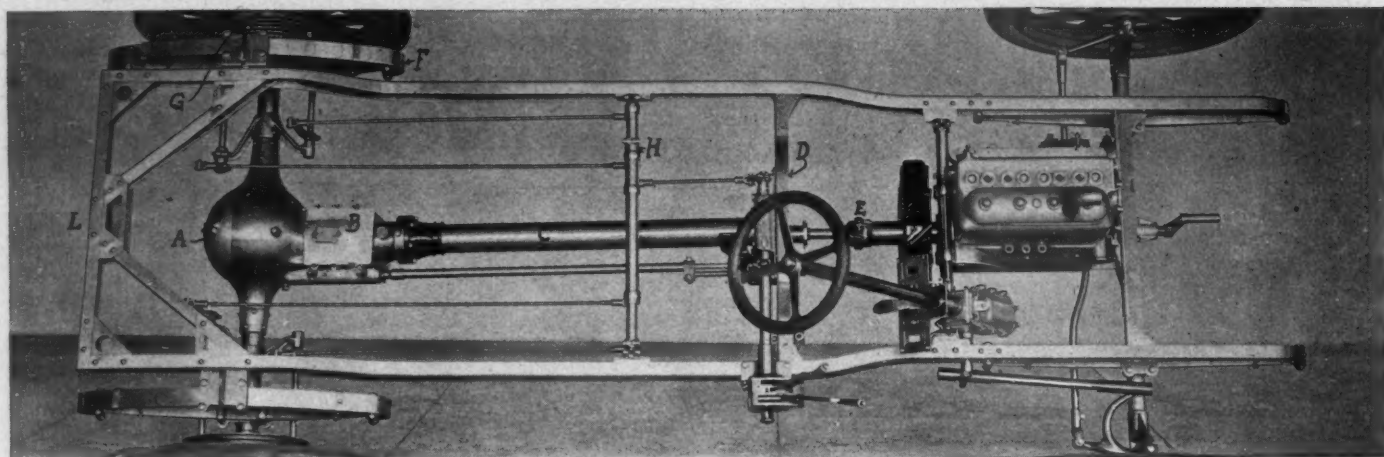
Making Room for Corbin—The Hills Motor Car Co., which represents the Royal Tourist in Philadelphia, has just closed to represent the Corbin in the Quaker City. To secure the necessary room at its rather restricted quarters at 130 North Broad street for a proper display of the full-jeweled car, Horace B. Hills, Jr., president of the local company, announces that a 100 per cent enlargement of the present salesrooms will be rushed to completion before the end of the year.

Progress of Michelin Plant—Nine of the new buildings being erected at Milltown, N. J., for the Michelin Tire Co., are completed and the others are almost finished. Imported machinery has been received and the work of manufacturing is well under way. It is Michelin's intention to establish branches in all the important cities in the United States where large stocks will be carried. Michelin will supply quick detachable as well as clincher tires. In addition the Michelin demountable rim and tires will be made in American sizes. With it has been used the Michelin anti-skid, leather-tread, steel-studded tire.

Cleveland Sets Show Dates—Manager George H. Collister is mailing application blanks together with diagrams of floor space for the forthcoming show in Cleveland the week of February 17-24. The main floor will be for motor car exhibits, the gallery for sundries and the banquet hall for sundries and motor cycles. "It is hardly necessary for us to dwell in detail on the quality of our show, as all those who have attended any one of our former ones can testify to the great success attained, and our next effort will be to outdo all previous success, if money and hard work can accomplish it," he writes.

Peoria Plant to Resume—A new plan is under consideration for the reorganization of the St. Louis Motor Car Co. at Peoria, Ill. The plant has been bought in by Warren Kelsey and H. V. Finkelstein. It is the intention of the purchasers to resume operations at once with the materials now on hand, and to complete the ten or twelve machines in various stages of manufacture. By this time it is hoped they will be in a position to reorganize the company, and to have sufficient capital on hand to preclude the possibility of failure. The factory will be enlarged, and the force added to. Mr. Finkelstein has left for the east and hopes to close the deal.

The Realm of the Commercial Car



TOP VIEW OF THOMAS TAXICAB CHASSIS, WITH TRANSMISSION ON REAR AXLE

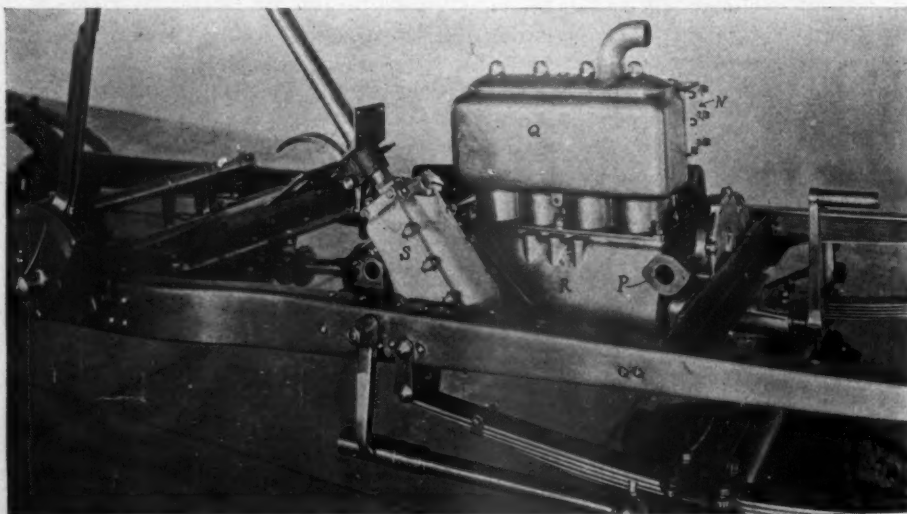
UNDOUBTEDLY the greatest field opening for the light car is that of cab work in cities of all sizes and the invasion of the taxicab will become a milestone in the history of motoring in America, marking as it does a vast field and one calling for a simplicity of design and lightness of construction combined with durability that will tax the inventive qualities of not a few engineers. It is a matter of regret that the American builder was not as well prepared for it as he might have been and that foreign builders should get the thin edge of the wedge entered before the American builder, with one or two exceptions, should have awakened not only to the existence of the taxicab field, but also to its almost limitless possibilities. Now that the field has been discovered and that the foreigner has a start of a couple of years in it, it is up to the home builders to get busy. Getting busy must not be interpreted as placing what might be called a taxicab in the streets of a city before the opening of spring. Such would be suicide to the interest in the taxicab. Makers must realize that a touring car cannot be abbreviated into a taxicab, neither can a two-cylinder runabout be limousined into one; nor can a three-passenger roadster be converted into one by the substitution of a coupe style of body.

Makers one and all must first accept the aphorism, that taxicabs are commercial cars and not pleasure vehicles. By placing them on the commercial side of the fence does not mean that they must be equipped with solid rubber tires and be manned with an ordinary driver; rather they are a commercial enterprise in that the taxicab must be as regular on schedule as the railroad train; for once the hurried traveler who trusts to the taxicab to connect with the limited train fails to make the depot because of a punctured tire or some other cause, then his faith in the taxicab has de-

parted. He becomes its enemy and will be one more in the ranks of the army of hammerers. This element of regularity is the great point in the taxicab and as such must receive paramount attention. Engineers in sitting down to the problem of designing a taxicab must first view it through the spectacles of interchangeability and demountability. To illustrate: The ideal taxicab will be one that can be run over a pit on the garage floor and in 15 minutes at the outside the motor and all of its parts can be dropped out and another one put in place, so that the cab is ready for the streets again. This may appear utopian to a fault, but it will be a fact in less than a decade, perhaps half a decade. Taxicabs must be dependable; drivers must not have to stop along the streets to correct troubles; the cab must be inspected in the morning before it goes out, at the noon hour and any other hour that it is garaged, so that when on the streets it is as fool proof as the steam locomotive. Perhaps this cannot be the case

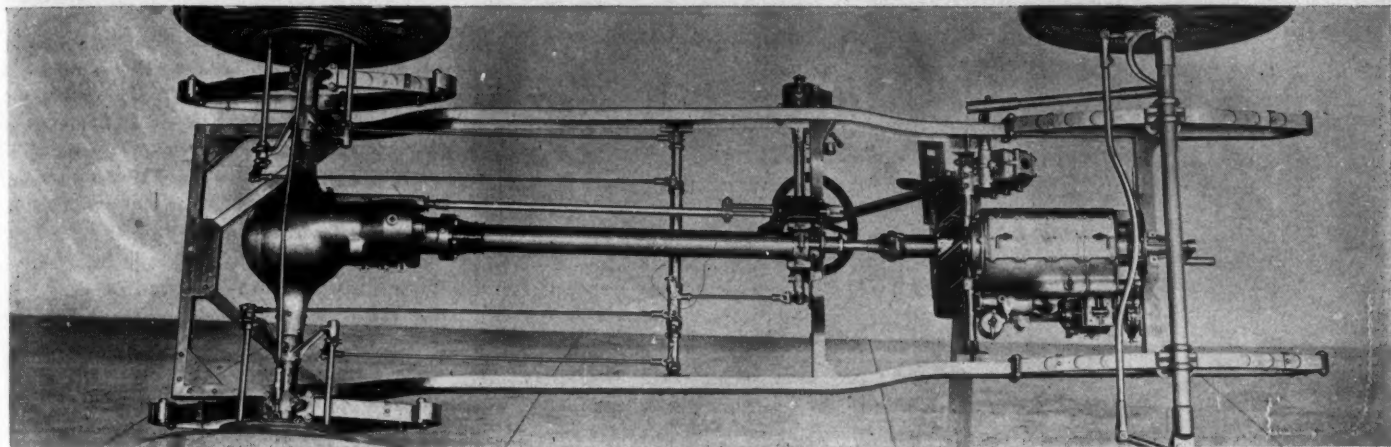
with tires, and if not then spare wheels are on the market which in test cases have been put on in 47 seconds, so that should a puncture occur, then less than a minute is lost. Spare rims of this nature will eliminate the tire trouble. Should, however, some imperfection develop during a trip, at the end of the run the car could be run to the garage and a new power plant installed in 15 minutes at the outside, and should a new transmission plant have to be added, its design should permit of as rapid if not more rapid interchange.

A few French engineers are on this road already and some remarkable progress has been made. To make a combined power and transmission plant that can be interchanged in 15 minutes will call for a three-point suspension of these combined plants as well as to have the wiring, gasoline piping and exhausting such that all of these parts can be removed integrally with the motor. One French concern has made remarkable progress in this demountable



THOMAS 16-22-HORSEPOWER ENBLOC TAXICAB MOTOR

The Field of the Taxicab



UNDERNEATH VIEW OF THOMAS TAXICAB, SHOWING ENCASED PROPELLER SHAFT

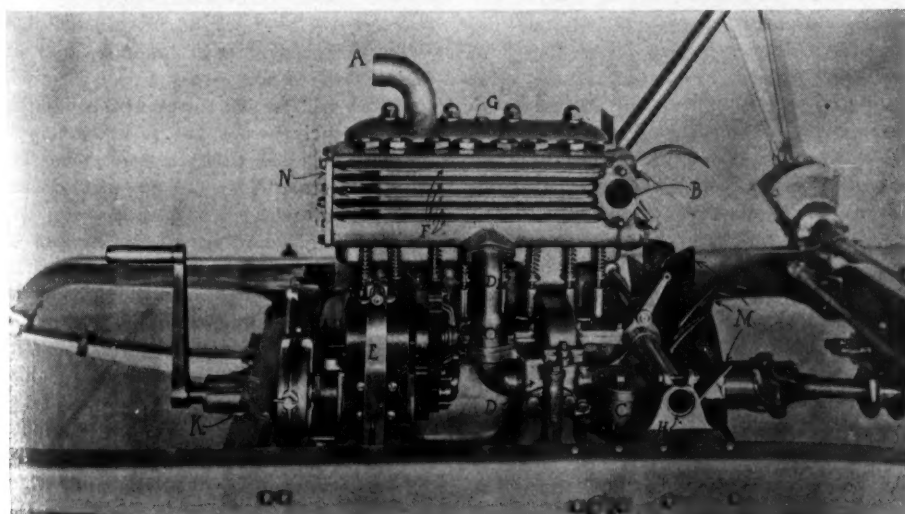
design and others are expected to show remarkable advancement within the year. It is this demountability and interchangeability that makes the taxicab pre-eminently a commercial vehicle and making it a commercial vehicle makes Time its greatest enemy. Time and regularity are the be alls and end alls of the commercial business, and that concern with the most reliable taxicabs will have the biggest business.

The one American concern that has foreseen the trend of events and that has gotten into the field early, but not so early as the Frenchman, is the E. R. Thomas Motor Car Co., Buffalo, which showed at the New York and Chicago shows its first taxicab and four illustrations of which appear herewith. The four illustrations show the general layout as well as the detail features of the car. Following that universal law of going from generals to particulars an invitation is first extended to the chassis, views disclosing the motor in front and

the transmission in rear, with nothing intermediate but the driveshaft connecting the flywheel clutch with the transmission on the rear axle. This design of "end" construction appears commendable in that the necessity of getting under the car or of lifting the floor boards is eliminated. Passing to particulars: The 16-22-horsepower motor with four cylinders in an integral casting—en bloc as it is termed in France—and the use of but two bearings for the motor crankshaft—one at the front end of the crankcase and one at the rear end—marks the work that has been done on the side of reduction of parts in the motor. But go further; on top of the cylinder casting is a large oval plate G, which has an integral curved water pipe A through which the water returns to the radiator top. The exhaust pipe to the muffler attaches at the opening B, there being no manifold branches to the each of the four cylinders, but one common passageway is incorporated within the valve expansion on which are the cooling fins F.

The intake manifold branches are also carried within the casting, so that the short pipe D1 between the carburetor D and the part carrying the cooling flanges F is the only detachable portion of the intake manifold. The carburetor, too, with the exception of the float chamber C, is made integrally with the crankcase, so that with these bits of design a great many extra motor parts have been done away with. But you cannot end here: the magneto for high-tension ignition is held on its base by a strap E, so secured together that without the use of wrenches or tools the magneto can be almost instantly removed and another put in its place. Instead of cooling by a pump circulation a thermo syphon system is used, incidentally doing away with the water pump and the gears driving it as well as its lubrication; and in keeping with this flywheel blades are carried on the perimeter of the motor flywheel so that a fan and its support and driving parts are done away with. This economy of parts is most notable in a review of this motor. The single motor casting Q has a forward plate N, which in combination with the plate G facilitates in removing core sand from the casting after use. The cleaning of the casting after use. The motor has a three-point support, a forward support at K and two rear supports on a tubular cross bar H resting at its ends in brackets on the side members of the frame. The steering gear case S is rigidly mounted, but the adjustment of the gear is accomplished from the top end of the case.

The transmission is incorporated with the rear axle, so that in case of trouble it and the axle are removed as one. The differential housing cap A when removed leaves a sufficiently large opening for removing the differential gear and through this opening and that in the top of the gear case proper closed by the cap B is room enough for removing all of the shafts and gears.



ALL PARTS ON MOTOR ARE GROUPED ON THE LEFT SIDE



APPEARANCE OF STEPNEY SPARE WHEEL AFTER CHICAGO-ST. LOUIS RUN

No 1908 Berlin Show—The Society of German Motor Car Makers has decided not to hold another exhibition until 1909.

Owen Goes to Florida—Wally Owen, a well-known New York race driver, has already gone to Daytona. He expects to drive a car at the Ormond meet and also in the proposed endurance run from Jacksonville to Miami.

Plans New Year's Century—Thomas Hay, manager of the Chicago Ford branch, is promoting a New Year's century for owners of Ford runabouts. The party will leave the Chicago Automobile Club at 12:01 a. m. January 1 and will make the century over the Elgin-Aurora route.

Traverse City Progressive—Traverse City, Mich., is now boasting of the fact that there are thirty-five motor cars owned in that city. It was only a few years ago that the streets of that city were decorated with pine stumps and the only horseless carriages were those drawn by oxen.

Pennsy Tags Ready—The issuance of the Pennsylvania 1908 tags was begun at the quarters of the state highway department in Harrisburg last Thursday, the more than 2,500 applications already on file assuring steady work for the large corps of clerks for some time to come. The colors decided on for the new tags are black and yellow.

Schenectady's Officers—The following have been elected officers of the Automobile Club of Schenectady, N. Y., for 1908: C. H. Benedict, president; Gerardus Smith, vice president; A. F. Knight, secretary; J. W. Yelverton, treasurer; board of governors, the four officers of the club and N. I. Schermerhorn, H. S. De Forest, W. D. Loucks, H. G. Chatain and G. H. Hill. The club was organized last June and has accomplished much good since. According to the retiring president, the club has been instrumental in arousing public interest in

the good roads movement. The members also have started the posting of signs at cross roads. The farmers take much interest in this work.

Circuit Is Assured—The town board of Newcastle, N. Y., at a meeting held last week, gave permission for the use of its roads for the proposed stock car race in Westchester county next spring. This completes the proposed circuit of 35 miles laid out for the race.

Car Transportation—As a special accommodation to passengers who wish to use their own motor cars in touring abroad, the North German Lloyd Steamship Co., through its general agents, Oelrichs & Co., has arranged to carry motor cars, going over and returning, at a comparatively low cost. Under the new conditions passengers may ship their motor cars on North German Lloyd steamships sailing from New York on Thursdays, and by taking the express steamships sailing on the following Tuesdays find their cars waiting for them at Plymouth, Cherbourg or Bremen. By this arrangement passengers will be enabled to make the trip up through the beautiful country from Plymouth to London in their own cars and without delay. The same is true at Cherbourg, where the trip to Paris may be made by motor car instead of by train. The same arrangements have been made in connection with Genoa and Naples. Special facilities exist at the North German Lloyd piers in Hoboken for boxing motor cars, thus saving cartage charges, often aggregating \$25, as the machine can be driven to the piers under its own power. The boxing and preparation for shipment is done by carpenters. Upon arrival on the other side the box is "knocked down" and the lumber laid aside until needed for the return of the machine. In this way

the heavy expense of a second box is saved the owner of the machine. On the completion of the tour abroad the passenger has only to deliver the motor car to agents who will look after its proper boxing and return.

Seven in Long Race—The date of the start of the New York to Pekin race has been set for February 15. The cable announces two more entries—a 40-horsepower Motorbloc and a 30-horsepower car made by the Brixia-Zust Co., an Italian concern. This raises the total to seven cars.

Seeks Shorter Route—The Long Island Automobile Club of Brooklyn will strive to secure the passage of the pending bill for the excursion of the eastern parkway through Cypress Hills cemetery to Forest Park, which would give a more direct route from Brooklyn to Long Island points for motoring uses.

Optimistic Sign—A dispatch from Cleveland, O., says the re-employing of 75 per cent of the men now laid off in the metal trade shops and factories over the country is predicted for the first few weeks of the new year by Secretary Frank, of the National Metal Trades Association. The same optimistic statement is also included in the association's regular report to its members who have felt the effects of the stagnation since October.

Drip Pan Necessary—The Buffalo aldermanic ordinance committee has reported in favor of an ordinance to check the dripping of oil and grease from motor cars on the pavements in this city. Assistant City Attorney William S. Rann prepared the proposed ordinance. The penalty is a fine of not more than \$50 or 1 day in the penitentiary for each dollar of fine imposed. Also a civil action may be maintained against the owner of the car. The ordinance has in view the protection of horses from streets made slippery from oil and grease from motor cars.

R. A. C. 2,000-Mile Trial—The 2,000-mile trial of the Royal Automobile Club of England has now been definitely decided upon. It will cover a distance exceeding 2,000 miles, with 20 miles of hill-climb and a 200-mile race over Brooklands track in order to provide a sporting finish. The calculations will be so made that immediately on the conclusion of the race winners in the various classes will be declared. The trial will start from London and proceed to Glasgow, where the Scottish trial will at once begin and at the conclusion of the Scottish trial the cars will continue their 2,000-mile journey. Entries can be made for the whole 2,000-mile trial or for the Scottish trial only, or for both. The distance run in Scotland will be, roughly, about 750 miles, and on the arrival of the cars in Glasgow all the cars will be under the management of the Scottish A. C. until the conclusion of the Scottish trial, when the Royal A. C. will again take over the management of affairs. The Scottish trial will be on the same lines as heretofore.

There will be ten classes in the 2,000-mile trial, based on R. A. C. rating, while in the Scottish trial the basis of classification will be by price, as in former years.

Motor Club's Chairman—Appointments of chairmen of the committees of the Chicago Motor Club for the ensuing year were made recently by President F. C. Donald, who has empowered each head to select his own associates. The appointments are as follows: Contest, Charles P. Root; technical, David Beeroft; runs and tours, Henry Paulman; signboards, Joseph V. Lawrence; house, H. P. Branstetter; grievance, Carl J. Metzger; legal, J. C. McKeown; race, John W. Hayden; publication, Walter L. Githens; publicity, C. G. Sinsabaugh; membership, Edward Rowan. The runs and tours board will be an important committee in that its chief duty will be to secure for Chicago the start of the next Glidden tour.

Wise Maine Farmer—Chester Parker, a farmer who has a big produce farm at Cornish, Me., goes to market at Portland, nearly 35 miles by motor car, carrying produce and saves 20 days in the year. Parker used to reckon from 1 to 1½ days for his long trip from his farm to Portland and back—at most a hard trip for his two horses. Now he has a Cleveland touring car and he loads up the tonneau with butter, eggs and table delicacies, seats himself and hired man upon a fine soft cushion instead of a hard board seat, adjusts his goggles, seizes the steering wheel and away he goes speeding without a jolt hard enough to crack one of the Plymouth Rock eggs. He figures he saves 20 days a year with his car, in addition to getting his produce into Portland in time to catch the Boston boat and get 20 per cent better prices than at home.

Records at Brooklands—Reports from England tell of the new records put up at Brooklands track on December 11 by W. T. Clifford-Earp in a 60-horsepower six-cylinder Thames car, who made records at 50, 100 and 150 miles, and 1 and 2 hours. He succeeded in all but 100 miles, which, however, is still to his credit, he having set up the record for this distance in 1 hour 15 minutes 40½ seconds at Ormond, Fla., in January, 1906, on a 90-horsepower Napier. At Brooklands he did the 50 miles in 39 minutes 10½ seconds, and the 150 miles in 1 hour 58 minutes 34 seconds. In the hour he covered 76 miles 453 yards and in 2 hours 151 miles 146.8 yards. Owing to heavy rains Brooklands has been flooded, but on account of the slope of the track itself driving has not been impeded. The Brooklands Club has issued its program for next year. This will consist of ten meetings, each comprising eight races. A system of penalizing winnings cars is under consideration in order to prevent a sequence of Napier victories, although the authorities do not publish this or the reason. Nevertheless, it is a correct one, the other makers not having

competed to the extent desired through the indefatigable S. F. Edge having secured lion's share of the awards.

New Yorkers to Have Banquet—The Coupon Club, a coterie of New York tradesmen lunching daily at Rector's, is to have a big banquet on January 11.

Resigns Under Fire—Frank Brown, Jr., son of ex-Governor Frank Brown, of Maryland, resigned as a member of the Automobile Club of Maryland rather than stand trial before the board of governors on charges of violating the speed limit by racing his car through one of the principal streets of the city which resulted in the killing of a pedestrian. Under the by-laws of the club no action resulting in his expulsion from membership could be taken because of his resignation. The club members passed resolutions, however, censuring young Brown and designating his act as brutal and cowardly. The members also decided to prefer charges against Howard W. Gill and another motorist named Bartlett, as the outgrowth of an accident October 1, which resulted in a young woman being badly injured.

Philadelphia Clubs—Few cities in the country can boast of three large and rapidly-growing motor clubs. Indeed, it has been claimed that Philadelphia—with the Philadelphia, Quaker City and Germantown clubs—is alone in this respect. It is due to the differing policies of these organizations that but one of them—the Quaker City Motor Club—is much heard of. The Quakers believe in featuring the sporting end, and their annual program is a constant succession of race meets, reliability and endurance runs, hill-climbs and other competitive events. The Philadelphians and the Germantowners are content to proceed on quieter but none the less effective lines. That the methods of the latter are bearing fruit, the announcement, a few days ago, that the membership of the Automobile Club of Philadelphia had passed the 500-mark bears evidence. Road improvement, looking after the rights of motorists, erecting signboards along the main routes leading out of the city, framing municipal and state legislation favorable to motorists—all these interests are well looked after by Philadelphia's parent organization. During the past season the club's efforts in signboarding the roads have become manifest in every direction. Those roads leading direct to Harrisburg, Baltimore, Atlantic City, New York, Delaware Water Gap and other main objective points of local and touring motorists will eventually be so marked for their entire length. Nor is the sporting side of the game entirely overlooked by the conservative Philadelphians. A few weeks ago the annual cross-country run for the Brazier cup was decided, and it was proposed to have a similar contest next Saturday, open only to club members, and over a route which would require the ex-

ercise of skill on the part of the owner-driver and ability to stand up under adverse conditions on the part of the car. This, however, was postponed because of rain. Motor travel in the neighborhood of the Quaker City is so bound round with borough, township and state restrictions that it requires a driver of judgment to keep within bounds at all times. One of the principal rules of the contest will be the penalizing of any machine which covers any section of the route in faster than the legal time as figured out by the tours and runs committee previous to the start. Running behind schedule will also be penalized, the honors going to the driver who can send his car along at a speed nearest the legal limit allowable; be it in city, township, borough or the open country.

Farmers Are Interested—State-wide and even nation-wide is the proposed scope of the good roads plans recently inaugurated by the Milwaukee Automobile Club, which offers prizes to farmers and other property holders who do the right thing by the roads passing their holdings. Emil Schandelin, of Milwaukee, who is responsible for the plan locally, is being literally flooded with inquiries from practically everywhere on this subject. The Milwaukee Automobile Club has decided to adopt the idea and will give \$250 to be distributed as cash prizes to the property holders of the rural districts near Milwaukee, who fix their roads to suit good driving and riding purposes. W. O. Hotchkiss, of Madison, a good roads man of the state, and several pathmasters of the club will act as judges. Funds for the prizes are being contributed by subscription of club members for the present.

Tough Trip to St. Louis—The White steam car from the livery of G. W. Grant, of Chicago, and driven by Ed Van Lunnen, and fitted with the Stepney spare wheel, completed its trip from Chicago to St. Louis last Thursday afternoon at 4 o'clock, the spare wheel still intact, with two seals unbroken. The remaining three were smashed during the trip from Springfield to Bunker Hill by the ice or frozen ground the next to last day. A stop was made at Springfield to allow the ground to freeze. This proved a salvation because after a good rest the tourists left Springfield Wednesday at 11 a. m. and the 70 miles to Bunker Hill were covered easily. The prairie roads had an icy crust that held the car, but in the swamps and lowlands the steamer still had to plow its way through gumbo mud hub deep. Thursday morning at 7 o'clock the car left Bunker Hill to complete the last 40 miles to St. Louis. The roads began to soften early, but the trip was made by 2 o'clock to the ridge, where the St. Louis motorists met the travelers and escorted them to the different newspapers and then out to the show, where the managers took care of them for the rest of the day. The car was then placed on exhibition.

WINTON



The six-cylinder Winton Six-Teen-Six is **jerkless, joltless, vibrationless.** Does more and prettier work than any four you ever saw. Develops driving power at slow motor speed, reserving an abundance of high motor speed for a dashing spin or a superb hill climb on the high. Starts from the seat on compressed air. Creeps through crowded traffic on direct drive, ever ready to dash through the first opening in response to throttle. Avoids gear shifting. Goes the route **like coasting down hill.**

One demonstration is convincing that the Six-Teen-Six is precisely the car for the man who wants the best there is.

THE WINTON MOTOR CARRIAGE CO.

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Branch Houses in

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CARBURETOR SALVATION GET A SCHEBLER



Always reliable regardless of engine speeds or atmospheric conditions—giving a perfect and uniform mixture always. It increases the power of your engine 25 to 30 per cent; makes it run as smooth as oil, utilizing every fraction of power without loss in transmission, climbing hills with ease and coasting down in safety.

Heart
of
the
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Whether you are a manufacturer of motor cars or an individual owner, the "SCHEBLER" Carburetor **MUST** have your consideration if you want **THE BEST**.

WHEELER & SCHEBLER, Mrs.

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21 $\frac{1}{2}$
PER CENT

Of all cars shown at the
Madison Square Garden Show



Were equipped with

**M
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Y**

**Midgley
Universal Rims**

and

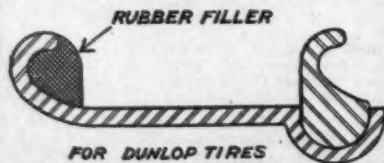
38 PER CENT

Of all Detachable Rims on Cars
in that SHOW were

**Midgley
Universal Rims**

**M
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Y**

At the Philadelphia Show one-fifth of all cars were equipped with the
Midgley Universal Rim—61% more than its nearest competitor

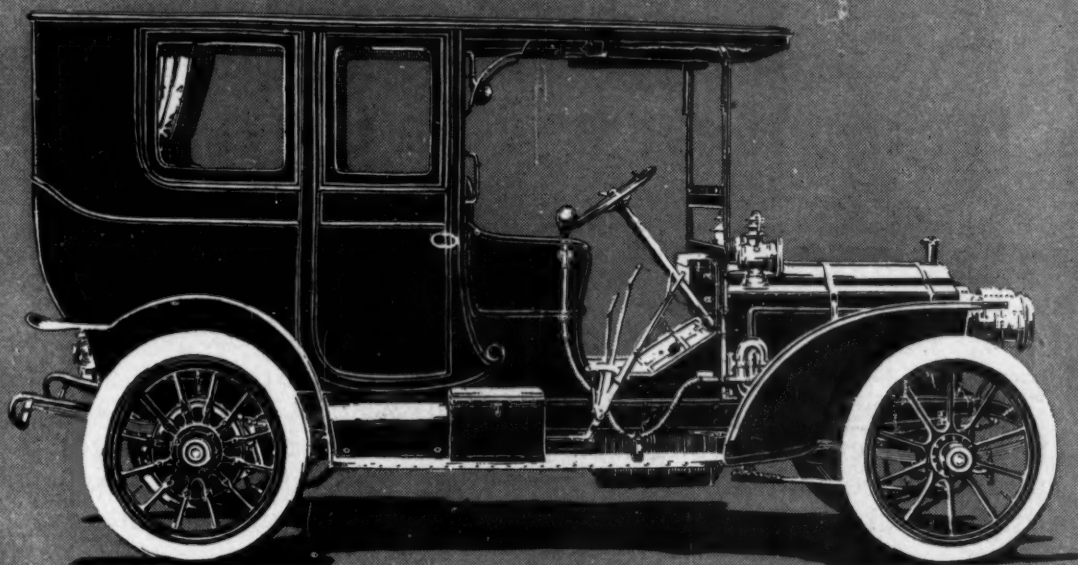


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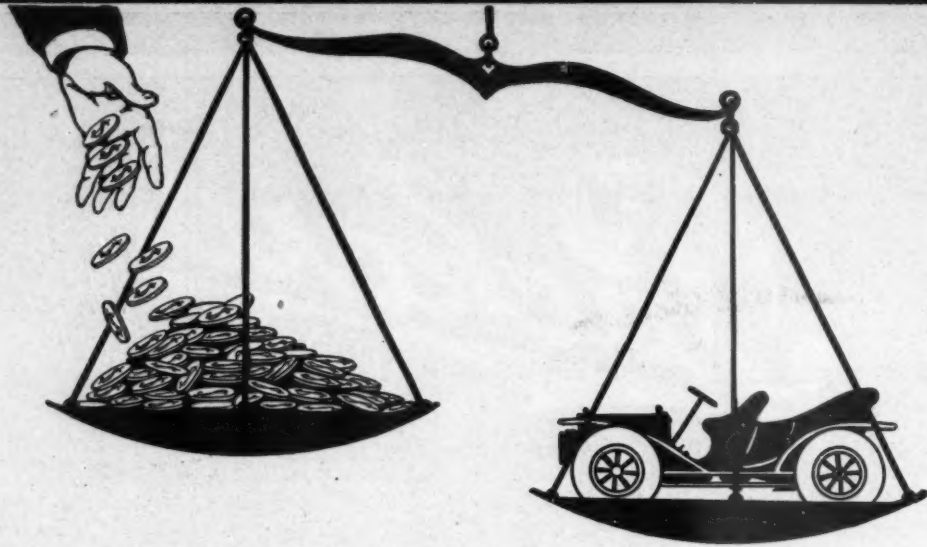
Packard

"THIRTY"
1908



"Ask the man who owns one"





Don't waste money and power with a heavy automobile

It takes gasoline and power to move weight. So every pound of weight, that you don't need, wastes your fuel (money) and keeps your engine from giving the greatest speed and hill-climbing ability.

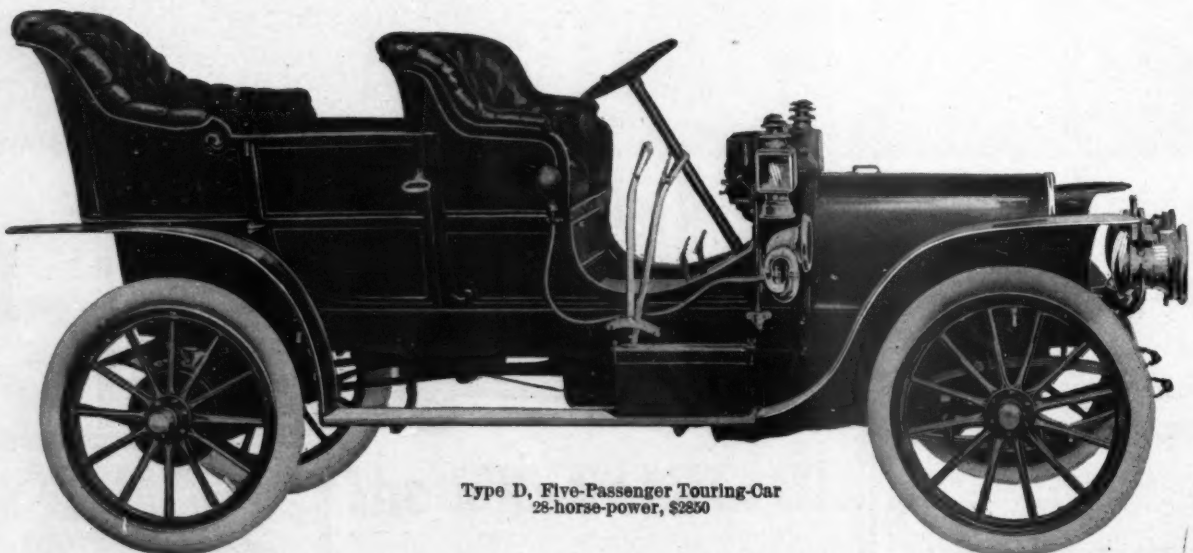
Excess weight bears down on tires and wears them out—*expense*. The heavy water-cooled automobile has more parts to get out of order—more *expense*.

The light-weight air-cooled Franklin weighs a great deal less than any other automobile of its power. No unnecessary weight to cut down speed and ability on hard roads and hills. The smallest cost for fuel and tires. And very little cost for maintenance and repairs.

Write for the Franklin catalogue

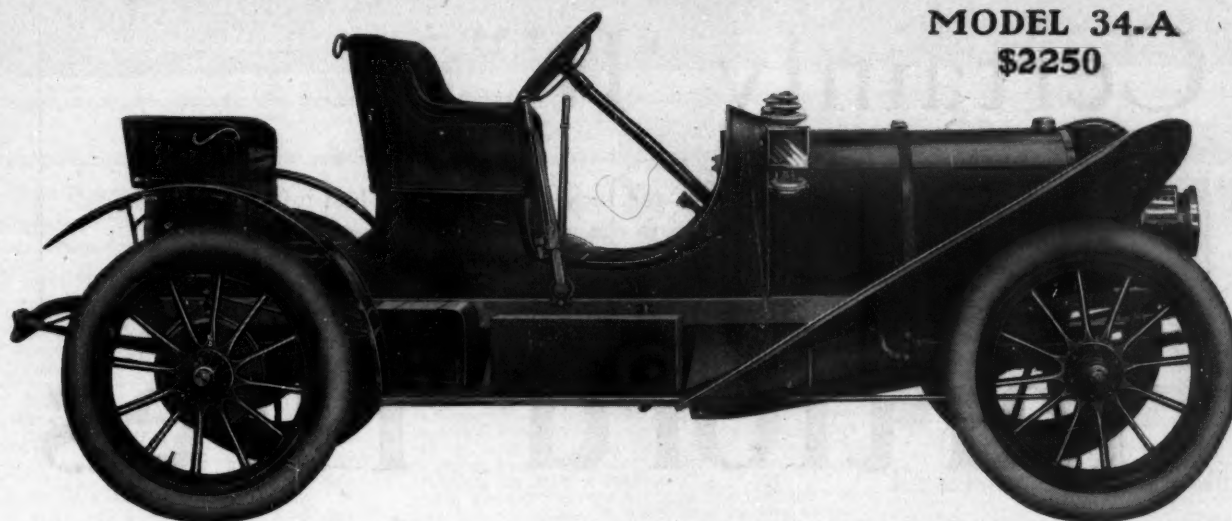
H. H. FRANKLIN MFG. CO., Syracuse, N. Y.

Member Association Licensed Automobile Manufacturers



Type D, Five-Passenger Touring-Car
28-horse-power, \$2850

THE CAR OF STEADY SERVICE



MODEL 34.A
\$2250

A Car that has been Tried and Proven Right

In the Chicago Motor Club Reliability Run one stock car of this model entered and went through the three-day grind of 630 miles, and finished in perfect condition with every seal intact and every part working as smoothly and steadily as at the start, thus proving itself from every practical standpoint

A PERFECT CAR

In this and the touring car of same chassis design is every modern feature of mechanical value, such as offset crank shaft, straight line drive, roller bearings throughout the transmitting mechanism and other features of equal value.

The price, \$2250, for either model, is made possible by the complete facilities and volume of output of the Rambler factory.

Why pay \$5,000 for a car when we offer every dollar in actual value at less than half that price?

LET US SHOW YOU; A DEMONSTRATION WILL CONVINCE

THOMAS B. JEFFERY & COMPANY Main Office and Factory
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REPRESENTATIVES IN ALL LEADING CITIES

"Hartford Tires Are Certainly 'It'"

in this Show." That's what one of the most prominent and best-informed men in the automobile industry remarked to the writer at the Chicago Show. "How do you account for the way

Hartford Tires

have forged to the fore, as is unmistakably evidenced by these shows? Why, seems to me that about every car I looked at in the New York Show was shod with Hartford Clincher or Dunlop Tires and equipped with Midgley Universal Rims; and here in this show I see history is repeating itself."

It isn't hard to account for the widespread success, praise and popularity of Hartford Tires. We have consistently and persistently insisted on keeping up the standard of quality, although we will admit it has been pretty tough at times in wear and tear on our temper, vocabulary and bank account.

We knew, however, that some day owners of automobiles were going to wake up to the fact that the only thing to look for in a tire, first, last and all the time, is *quality*. Price is secondary.

That day is here and *now*. Owners are insisting on Hartford Tires, and for no other reason than the reputation Hartford Tires have made for themselves.

If you have been trying "the other kind," try Hartfords this time. You are sure to realize both pleasure and profit by the change.

The Hartford Rubber Works Company Hartford, Conn.

NEW YORK, Broadway and 57th St.; CHICAGO, 83 Michigan Ave.; BOSTON, 217 Boylston St.; CLEVELAND, 1821 Euclid Ave.; DENVER, 1564 Broadway; PHILADELPHIA, 1425 Vine St.; BUFFALO, 725 Main St.; ATLANTA, GA., 55 Auburn Ave.; LOS ANGELES, 1505 South Main St.; SAN FRANCISCO, 423-433 Golden Gate Ave.

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The EXCELSIOR

"LIVE WIRE"

Vol 1

CHICAGO, DECEMBER 26, 1907

No. 3

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Excelsior Supply Company
 Manufacturers-Importers-Jobbers
 233-235-237 Randolph Street, Chicago

The EXCELSIOR LIVE WIRE is a new ignition device designed to increase the commercial speed and power of every man that reads this page.

Edited by R. B. Wrigley,
 Manager Publicity Department,
 EXCELSIOR SUPPLY COMPANY.

Nineteen hundred and eight!

What will your record be, and mine, when another year has run its course?

Will it be the record of a man who drifts with the stream, or will it be the record of a man who knows what he wants, and "gets what he wants when he wants it," a man who pilots his own commercial destiny, in spite of business storm and stress, as surely and truly as the captain of an ocean liner guides his craft straight from port to port, no matter what the wind or weather?

Nineteen hundred and eight will be full of big opportunities for every live business man. This country is tremendously rich. It is rolling in wealth. Millions upon millions of jingling, clinking dollars will be spent during the next twelve months, and if you and I don't get our share of it it will be because we are asleep and dreaming.

This is a nation of spenders. The American people are the greatest aggregation of good liver and generous spenders this world has ever known. And it will take a hundred attacks of Wall Street colic to cause any real or permanent stagnation in our commercial life.

As for the EXCELSIOR SUPPLY COMPANY, we are preparing for a year of more strenuous activity than we have ever had in our history. Nineteen hundred and seven has been a world beater with us, but it won't hold a candle to 1908.

We are increasing our force, enlarging our facilities, and adding new money-making lines. We are constantly perfecting our organization, cutting out lost motion here and wasted time there, gradually bringing our entire business mechanism up to the smooth-running perfection of the finest balanced watch.

And so as we extend our hands to you this week in sincere New Year's greeting, we do it with a feeling of confidence in our ability to back up our good wishes with good deeds. For we are going to be of more real use to you—give you BETTER SERVICE, BETTER LINES OF GOODS, BIGGER OPPORTUNITIES FOR PROFIT-MAKING this year than you have ever enjoyed before.

Here's to the New Year—the latest and greatest of all New Years—1908.

Come To The Motor Boat Show

If you can possibly get here to the Motor Boat Show, don't miss it for anything. It will be an eye-opener—it will be an education—it will give you some brand new ideas on "what's doin'" in the Motor Boat line, and especially in Motor Boat Accessories.

Some of our customers are doing a big business in overhauling water boats during the winter. One of them has nearly 50 lined up now for overhauling before spring, and that is certainly pretty fine business.

All the big improvements in the last year or two have not been in boats and engines alone. The accessories, those devices without which the best engines in the world are worthless, have made bigger advances than anything else. Therefore the up-to-date dealer needs to be posted. He doesn't want to overlook any bets.

Our exhibit at this show will be a dandy. It will contain every good thing that the live dealer wants to know about—new motor boat carbureters, the best spark coils, new XLCR batteries, propeller wheels, marine plugs, timers, generators and magnetos—everything that you can possibly think of that will help you to equip motor boats so as to produce the greatest possible efficiency.

Come to the show, and while you're here make our store at Randolph street your headquarters.

The New Victor Anti-Skids

The interest and enthusiasm created by this new device during the past week have been extraordinary. Our little announcement in these columns last week has simply jammed our daily mail with VICTOR



ANTI-SKID inquiries and VICTOR ANTI-SKID orders. The people have been WAITING for this device. It fills a WANT, and a big one, too. That's why it has leaped into such tremendous popularity in a single week.

A HIT

Excelsior Auto-Cycle Wins Applause From Experts Everywhere

We simply can't tell you how gratified we are at the tremendous hit our EXCELSIOR AUTO-CYCLE is making with dealers, riders and prospective buyers all over the country.

We have pulled off some big stunts in the last 31 years—we have had "cracker-jack" propositions that everybody went crazy over, and big leaders that left our competitors miles behind—but we have never had ANYTHING that we were so UNCONDITIONALLY PROUD OF as we are of this superb machine.

When you have worked day in and day out, as well as nights and Sundays, for two long years, trying to attain a certain definite object—when you have tested and experimented, built up and torn down and built up again, time after time, in your efforts to realize an ideal—when you have done all this, it is certainly a tremendous satisfaction finally to be able to hold in your hands the finished, perfected product, the culmination of all your strenuous effort and patient endeavor.

We could have had this machine on the market a full year ago if we hadn't been so particular. But we had an IDEAL ahead of us, and we were determined to REACH THAT IDEAL, to bring every last point as near to perfection as engineering brains and genius could make it, before we placed the first machine before the public.

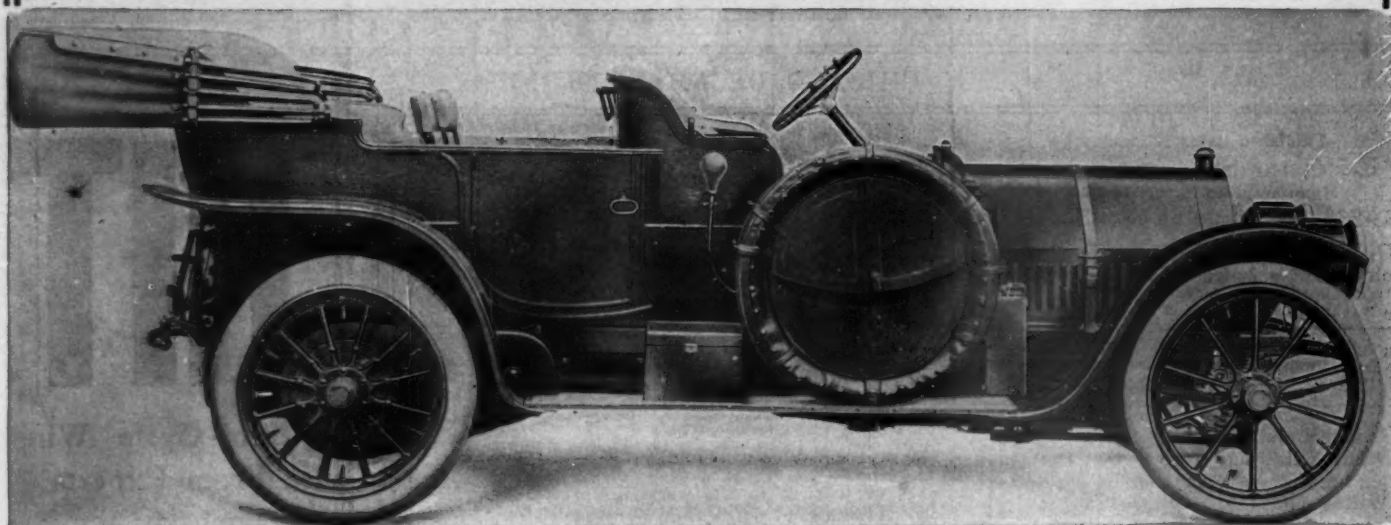
The results now are ample reward for all our painstaking effort. For every practical motorcycle man who has looked the EXCELSIOR AUTO-CYCLE over at all absolutely agrees with us that nothing ever before made in the motor-cycle line comes within forty miles of touching this.

It is the materialization of an engineering ideal.

IT IS THE VERY SPIRIT OF SPEED AND POWER CRYSTALLIZED IN STEEL.

If an agency has not already been located in YOUR town, write quick for agency terms.

POPE-TOLEDO



One of our 1908 Models

Characterized by extreme elegance of appointments, simplicity of design, and superb finish.

**Quiet,
Comfortable
and Very Speedy**

Shrewd, long-headed dealers have been strongly impressed with the wonderful showing made by the Pope-Toledo at New York and Chicago Shows.

Live dealers in unoccupied territory are invited to correspond with us.

Pope Motor Car Co. Member A.L.A.M. Toledo, Ohio



EXCLUSIVE

Great *Chadwick* SIX

\$5500—TOURING CARS--TOURABOUTS--RUNABOUTS—\$5500

It is becoming fashionable everywhere to own one. Only smart people of ample means can afford to buy one. *Verily 'tis said that to him who hath shall be given.*

A GREAT CHADWICK SIX is in reality the cheapest high powered car for sale to the public. Notwithstanding the fact that it is easily the most powerful stock car built in the world, it will last and satisfy over a period of years, and its ability to go faster, to go slower, to always go and go more smoothly than any other motor car are facts we will prove by competitive tests.

If we could build CHADWICK SIXES better by putting into their cost of construction \$500 or \$1000 more money, we would not hesitate to do so for an instant. The price would simply be advanced accordingly.

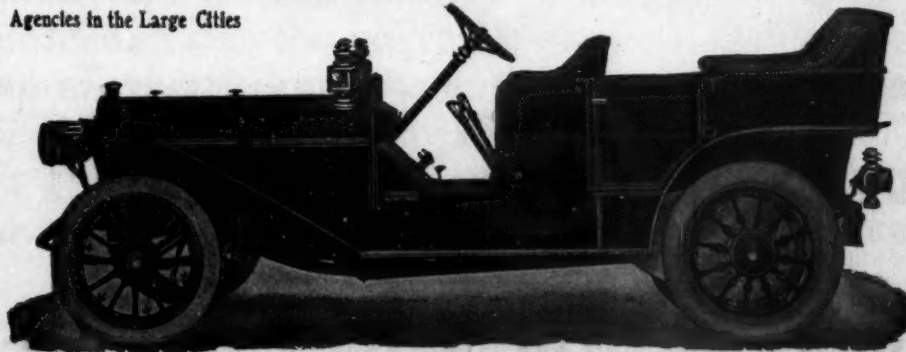
We will go further and state that THE GREAT CHADWICK SIX, in nimbleness and refinement is as much superior to the so called high grade American and European motor cars as is the victorious motor boat "Irene" with its big CHADWICK motors compared to the old favorites which it so easily defeated for the International Cup and British Admiralty Trophy on the Hudson last September.

Ask any owner of a CHADWICK SIX about power and the control of it.

CHADWICK ENGINEERING WORKS,

Spring Garden and 32d Streets,
PHILADELPHIA and POTTSTOWN, PA.

Agencies in the Large Cities





YOU SWEAR AT THIS

The Feeling of Satisfaction to the STEPNEY SPARE WHEEL

owner is never greater than when on a winter's night he passes some fellow motorist down on his knees in the slush and snow, repairing a punctured tire. He knows that if his own tire bursts or a blow-out occurs, he can put on his Stepney and he is off in less than a minute, without even soiling his gloves, and without experiencing any discomfort. This assurance of comfort to yourself and guests in your car is worth the price of many wheels.



YOU SWEAR BY THIS

The run from Chicago to St. Louis has proved beyond a question every claim that we have ever made for

THE STEPNEY SPARE MOTOR WHEEL



The Stepney Spare Wheel is carried the same as any spare casing, with inflated tire all ready for use, in case of puncture, and it may be attached to the wheel in less than a minute, without removing the punctured tire and without jacking up the car.

There are 50,000 in use in England and on the Continent. It is a part of the equipment of every Taximeter Cab in London, Paris, Berlin and New York. Six thousand have been sold in our Chicago office in less than two weeks.

It is the biggest thing that has ever been put on the market and you must have it on your car. Place your order quick, so that there will be no delay in shipping your wheel.

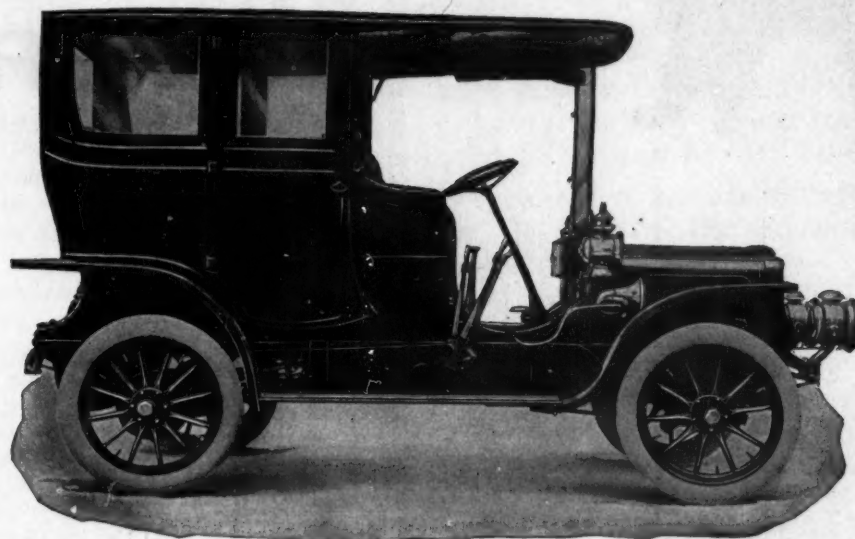
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THE SPARE MOTOR WHEEL OF AMERICA Limited

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THE INCOMPARABLE WHITE THE CAR FOR SERVICE



EXCLUSIVE FEATURES OF THE WHITE LIMOUSINE

The exclusive White quality of absolute noiselessness of operation is of particular advantage in a limousine because, in a car with a closed body, any noise made by the mechanism is even more noticeable and annoying than in an open vehicle.

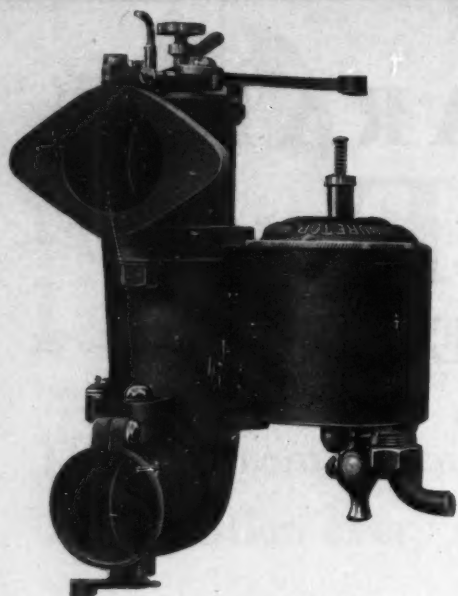
Another exclusive White quality, namely, genuine flexibility of control, permits of the machine being guided safely and speedily through the crowded city streets. The speed of the White may be accommodated to the exigencies of street traffic without any changing of gears, jerky starts or the embarrassing and sometimes dangerous "stalling" of the engine.

As regards graceful lines and luxuriousness of equipment and finish, the White limousine must be seen to be appreciated.

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CLEVELAND, OHIO



SIMPLICITY ECONOMY POWER

The new 1908 Buffalo Carburetor is mechanically operated, always acting with the precision of a perfect machine under all conditions. Skilled workmanship, the finest materials and perfect design also help to make it the best carburetor on the market.

**FLEXIBLE
RELIABLE
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You Know the Schoolboy
Who Digs Out His Own
Problems and the One Who
Copies Them Over the
Worker's Shoulder.

The "Maxwell"

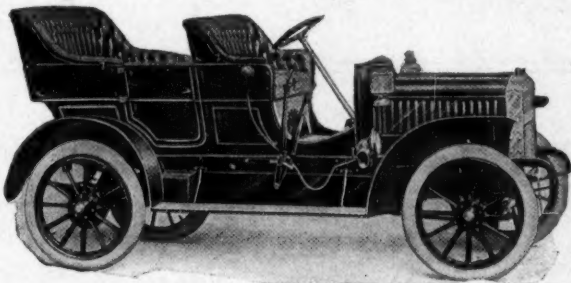
Originated its Banner Features

The unit construction and 3-point suspension was first introduced in America on "Maxwell" cars. This method of suspending the power plant prevents disalignment of bearings.

A majority of the American cars have now adopted this means of suspension.

The "Maxwell" thermo-syphon cooling system, which eliminates the use of pumps, has met with great favor among other American manufacturers.

When you consider the "Maxwell" record for efficiency and dependability under the most rigid conditions compared to the record of other cars, you can't help but think how the schoolboy who copied "fell down" on examinations.



24 H. P. TOURING CAR, \$1750.

When you consider "Maxwell" prices and the "Maxwell" record you must realize that, dollar for dollar, there is no such motor car value elsewhere.

Other "Maxwell" features include the shaft drive with two self-oiling universal joints, and the multiple disc clutch which permits slipping without wear.

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A ride in any one of these cars will convince you of "Maxwell" supremacy—one of them is the car for you.

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The wise automobile buyer will purchase a six-cylinder car if he desires a horse power of forty or over or pays more than \$2750. The six-cylinder car has so thoroughly demonstrated its great superiority over the high powered Four that the latter type of car is being built by fewer manufacturers each succeeding year.

Six-cylinders are absolutely necessary if you are to derive the maximum amount of pleasure in motoring.

It is obvious, however, that but few manufacturers are experienced builders of Sixes, inasmuch as the majority of manufacturers held back until they were *forced to build Sixes*. The Stevens-Duryea Company were the six-cylinder pioneers of America. The design of the Stevens-Duryea Big Six, which scored an instant and unqualified success, was being worked out a year before the first car was built in 1905. Hundreds of Stevens-Duryea Sixes were *in use and giving satisfaction* when manufacturers generally were *starting to build Sixes*.

The famous Stevens-Duryea Unit Power plant and Three Point Support insure perfect alignment always, lighter weight and extreme simplicity and durability. Its six-cylinders mean perfect control, quiet running and absence of vibration.

Don't purchase an experiment simply because it is a Six-cylinder car. Select a car that is a known quantity. Stevens-Duryea Sixes have been a known quantity since 1905.

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Very truly yours,

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And this is no unusual experience, for it is only the occasional puncture that demands detaching and attaching

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Always An Easy Trick

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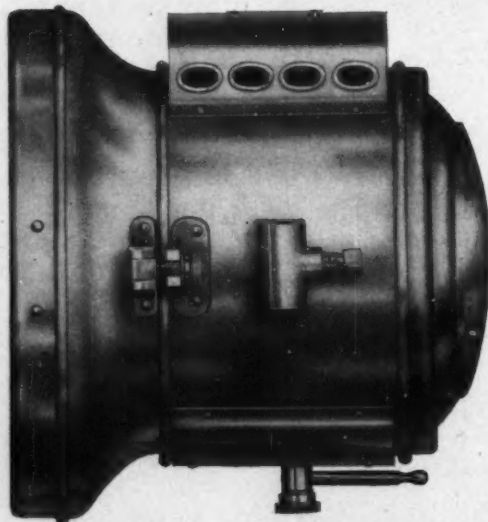
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We request that you consider the EXCLUSIVE FEATURES of the 1908 Solars from the point of SERVICE. While ornamentation is duly considered — their VITAL MERIT is in the production of light.

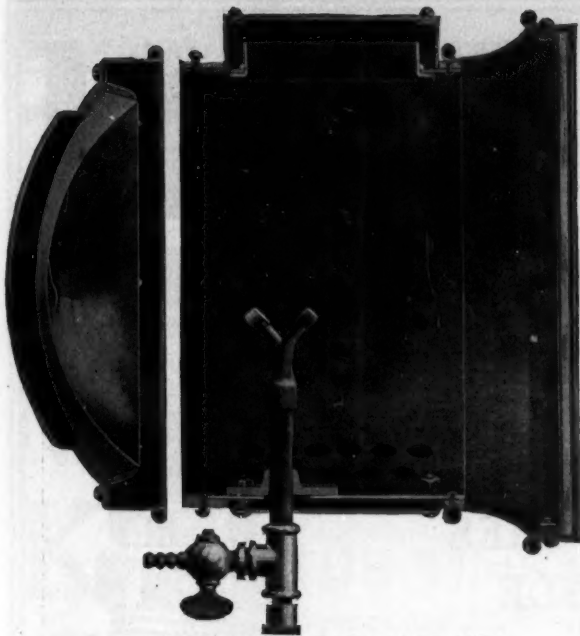
If your "Solar Knowledge" is deficient, you, therefore, are not familiar with the latest AND MOST MARKED improvements in auto-lighting. You should know the Bausch & Lomb Special Short Focus Mangin Mirror (shorter than the navy standard); Our System of Interior Assembling; The Besnard System of Light Projecting and Eclipsing (the sensation of Europe last season); The New Black Finish. These are EXCLUSIVE features.

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SECTION OF RUSHMORE HEADLIGHT WITH
BACK CAP REMOVED

Rushmore Convenience

is not as vital a consideration to the purchaser as Rushmore efficiency, but it is the best of its sort, nevertheless. If you have the ill luck to hit something, and the lamps need repairing, you will appreciate the fact that Rushmore Lights are put together throughout with bolts and rivets. No solder is used except to hold the nuts from unscrewing.

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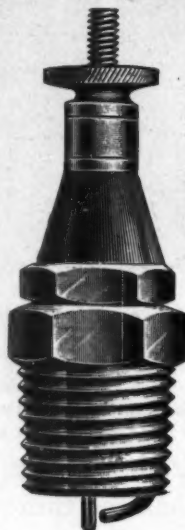
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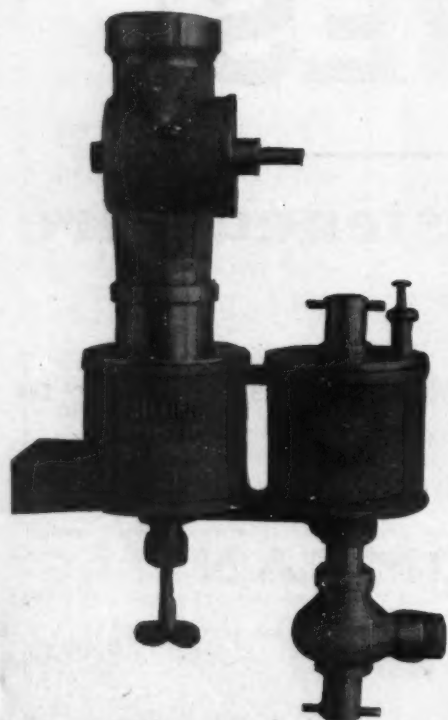
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Imperial Roadster

The Car with

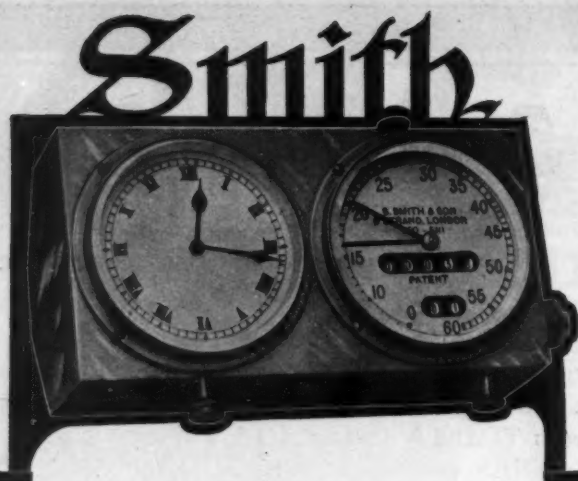
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30 to 35 h. p., 36-inch wheels, selective type transmission, Eisemann magneto, double drop frame. Price, including gas lamps and generator, horn, tools, etc., \$2500.00.

Manufactured by **Imperial Motor Car Company** Incorporated

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More Accurate and Sensitive at all speeds on account of the hand workmanship and the 3-spring governor:

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HEDGELAND EQUALIZER

Any skidding that ever happened is due solely to the differential gears allowing the car to pivot on one wheel and get beyond the control of the driver. The *HEDGELAND EQUALIZER* absolutely drives both wheels and gives the driver a positive braking effort on both wheels. It is interchangeable with the differential gears in the following cars:

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If you are buying a new car, *insist* upon it; if you already have a car, make the change. It's a life saver, tire saver, a nerve saver and a power saver.

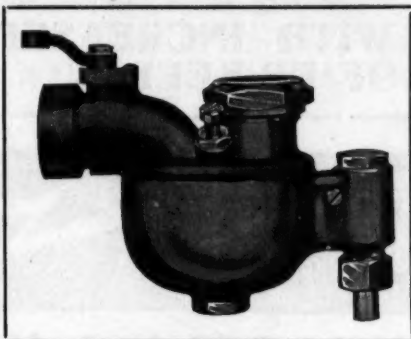
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The 1908 line consists of

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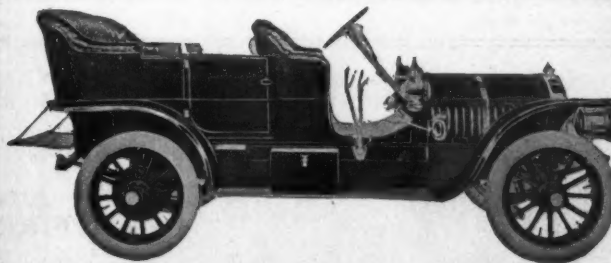
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Each Machine Carries 7 Passengers Comfortably



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Model M--\$2750

35 H. P.--Double Ignition

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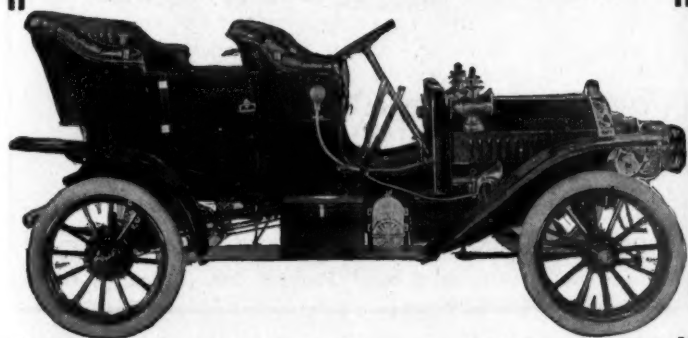
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Model "S", 24 H. P., \$2000

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Our catalogue gives full information and will be furnished on request.

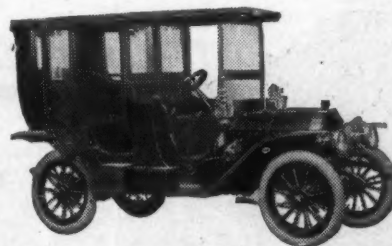
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Member of American Motor Car Manufacturers' Association

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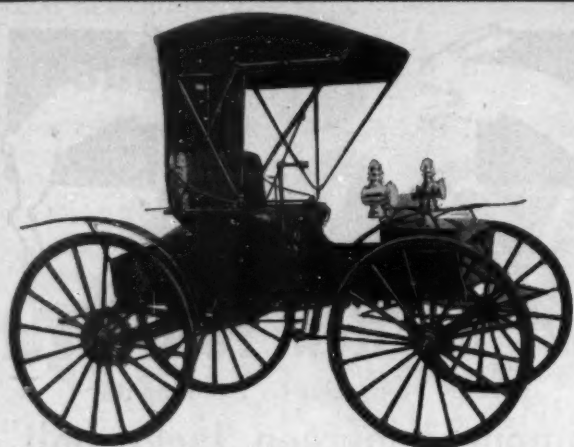
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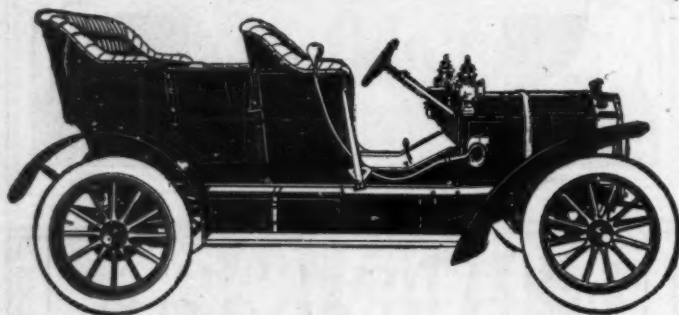


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**In all respects a perfect machine—
Built as well as any car in the world.**

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Standard Finish—Red or White—Including 2 Gas Headlights, 2 Side Oil Lamps, Tail Lamp, Generator, Sight Feed Lubricator, Dash Oil Pump, Clock, STEWART SPEEDOMETER, Dash Coil (2 Unit), Tool Outfit, etc.



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Electrical Measuring Instruments

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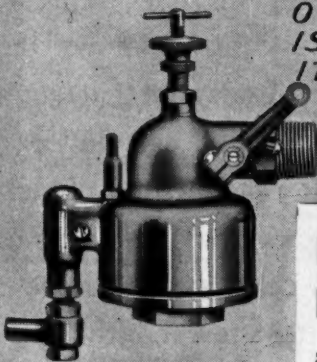
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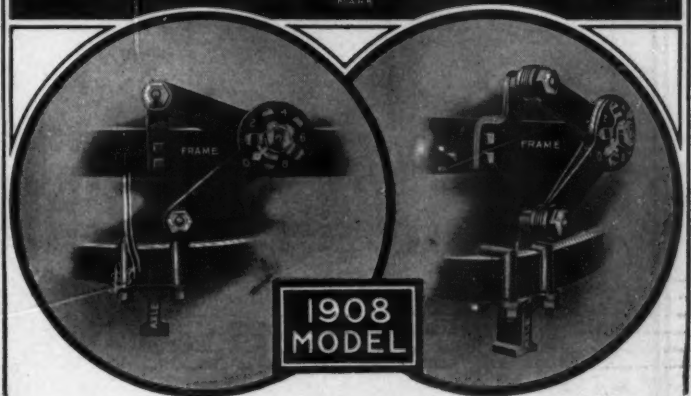
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This control of the springs can be secured only by the use of the Truffault-Hartford Shock Absorber. The device that makes cobble-stones and rough roads seem like asphalt.

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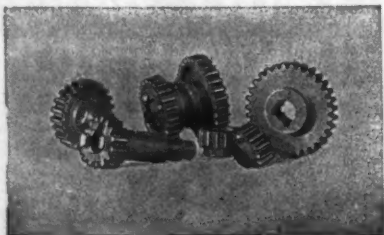
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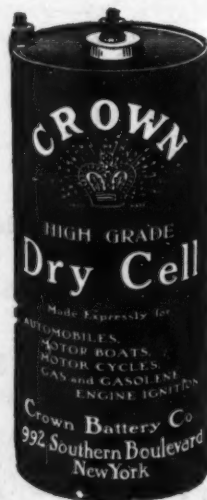
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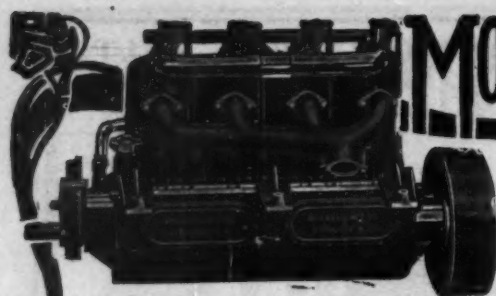


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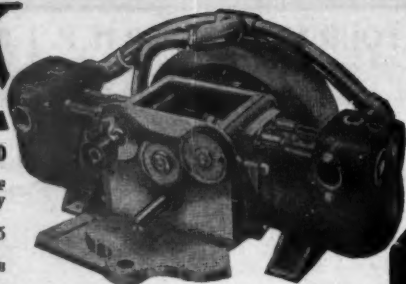
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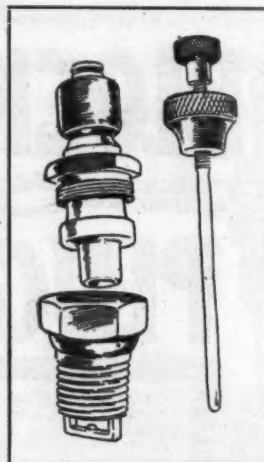
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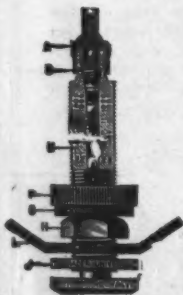
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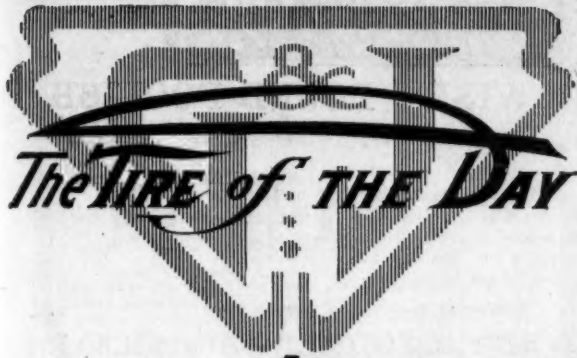
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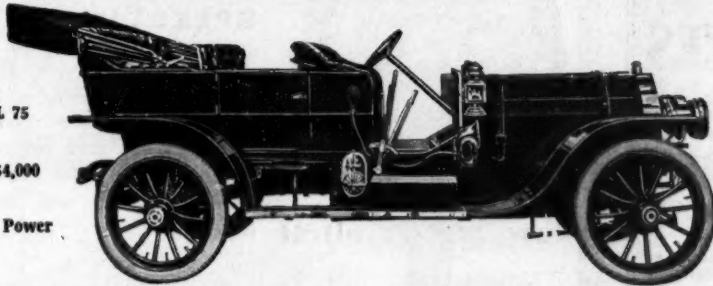
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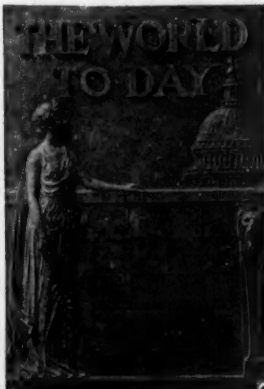
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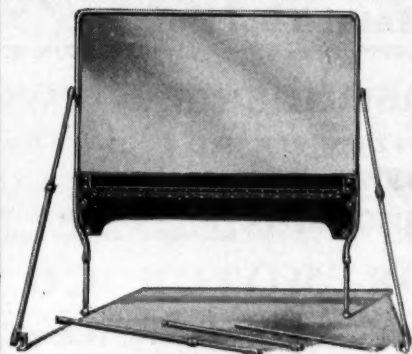
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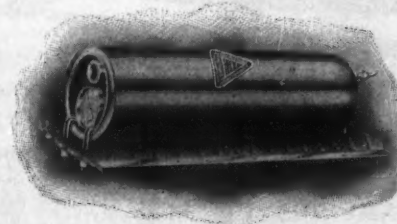
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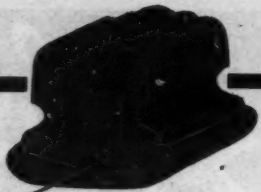


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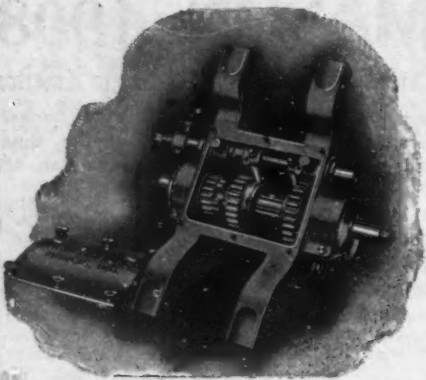
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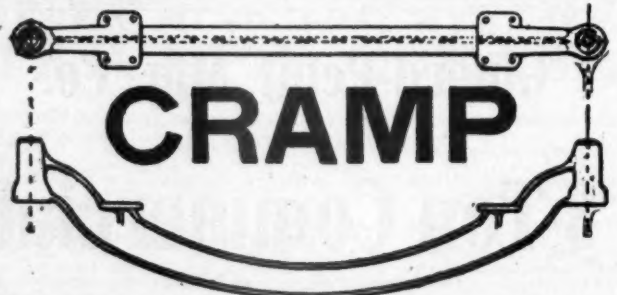
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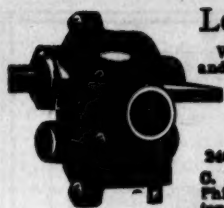
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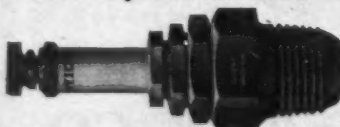
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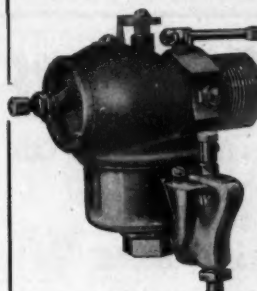
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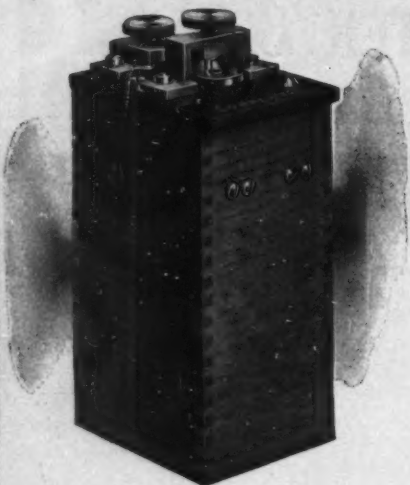
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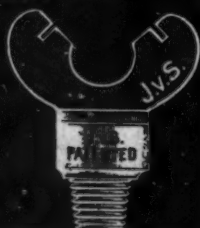
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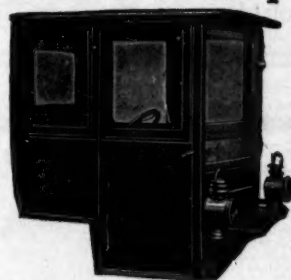
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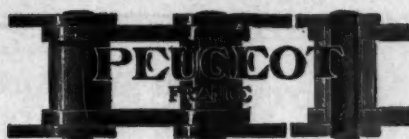
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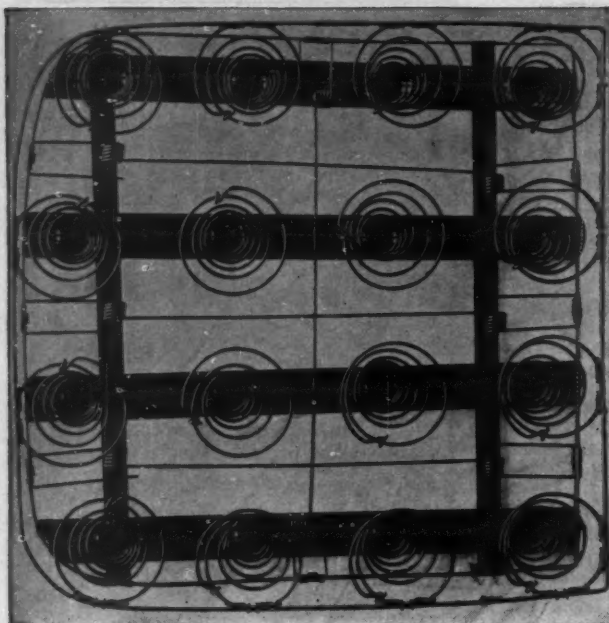
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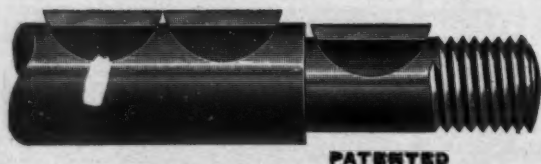
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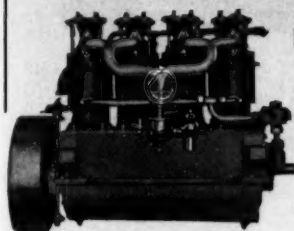
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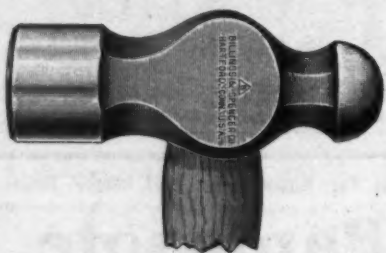
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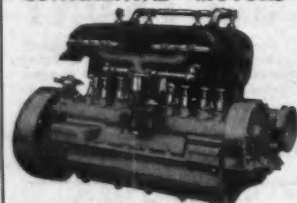
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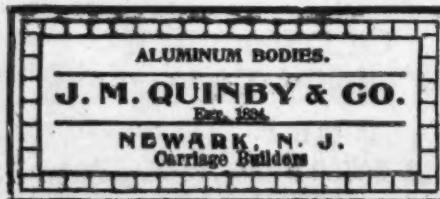
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"Hartford Tires Are Certainly 'It'"

in this Show." That's what one of the most prominent and best-informed men in the automobile industry remarked to the writer at the Chicago Show. "How do you account for the way

Hartford Tires

have forged to the fore, as is unmistakably evidenced by these shows? Why, seems to me that about every car I looked at in the New York Show was shod with Hartford Clincher or Dunlop Tires and equipped with Midgley Universal Rims; and here in this show I see history is repeating itself."

It isn't hard to account for the widespread success, praise and popularity of Hartford Tires. We have consistently and persistently insisted on keeping up the standard of quality, although we will admit it has been pretty tough at times in wear and tear on our temper, vocabulary and bank account.

We knew, however, that some day owners of automobiles were going to wake up to the fact that the only thing to look for in a tire, first, last and all the time, is *quality*. Price is secondary.

That day is here and *now*. Owners are insisting on Hartford Tires, and for no other reason than the reputation Hartford Tires have made for themselves.

If you have been trying "the other kind," try Hartfords this time. You are sure to realize both pleasure and profit by the change.

The Hartford Rubber Works Company Hartford, Conn.

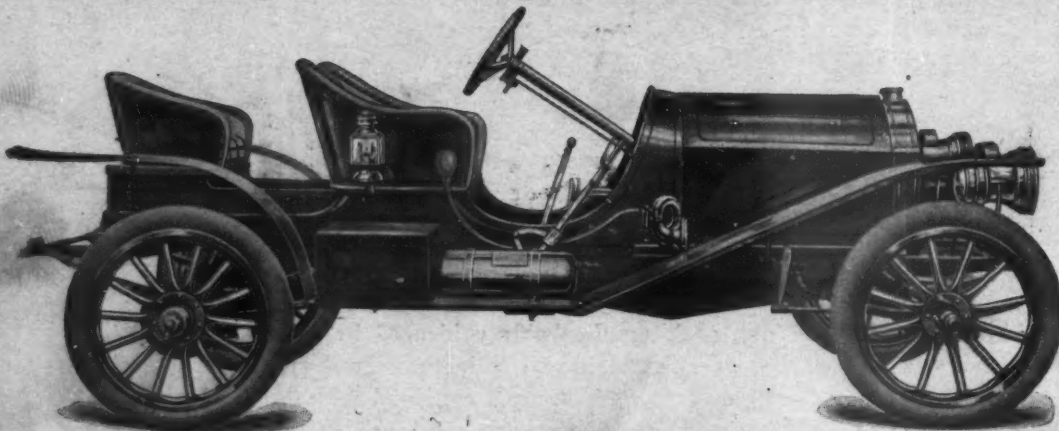
NEW YORK, Broadway and 57th St.; CHICAGO, 88 Michigan Ave.; BOSTON, 817 Boylston St.; CLEVELAND, 1881 Euclid Ave.; DENVER, 1564 Broadway; PHILADELPHIA, 1425 Vine St.; BUFFALO, 725 Main St.; ATLANTA, GA., 55 Auburn Ave.; LOS ANGELES, 1505 South Main St.; SAN FRANCISCO, 423-483 Golden Gate Ave.

AGENCIES—Pittsburg Rubber Co., 913-915 Liberty Ave., Pittsburg; Gugler Electric Mfg. Co., Minneapolis; Geo. W. Perry & Co., St. Louis; Mercantile Lumber & Supply Co., Kansas City; F. P. Keenan Co., Portland (Ore.); Salt Lake Hardware Co., Salt Lake City; Compania Mexicana De Vehiculos Electricos, City of Mexico.

Stoddard-Dayton

UP-HILL WITH THE WINNER

Stoddard-Dayton 8-K Roadster Cleans up all Competitors in California



IT IS NICE to own a GET-THERE machine. Echoes of the annual California fixture—the Riverside Box Springs Hill Climb—bring joy to the heart of every present and prospective owner of a Stoddard-Dayton car. Model 8-K Roadster has just made another sweep of the prize platter. Three new Silver Cups have been added to the trophies won this year by the **ONLY GASOLINE CAR** to finish with a perfect score in the Glidden Tour for the Hower Trophy.

The Box Springs Course is nearly four miles long, with a grade varying from 7 to 9 per cent. In the three events in which Stoddard-Dayton Model 8-K was entered, time was annihilated, new records made, and **ALL** competitors outclassed. In the easy conquest in the Free-For-All for the \$2,500 class, 10 seconds were clipped off the winning record of last year. Model 8-K's time was 5:31½. As a result of this victory

Entrants of Higher Priced Cars Scratched

and refused to accept the competitive issue in both events that followed.

In the \$3,000 class 8-K got there again in 5:23 flat—18½ seconds better than the record time made in 1906. The scare grew into an epidemic.

All other Cars Withdrew from the Free-For-All

"Letting her out" in this final race, 1½ seconds were cut off the previous best record.

Model 8-K came out of the Hill Climb with the phenomenal time-credit of 5:21½ and holder of the Perpetual Challenge Cup.

Stoddard-Dayton's **BEST** time was just 21 seconds **FASTER THAN ANY OTHER TIME MADE**, irrespective of class, proving the efficiency and power of the valve-in-head type motor.

DOLLAR FOR DOLLAR GREATER motoring value is obtained in Stoddard-Dayton cars at **LESS** cost for maintenance than can be found in machines costing much more.

Stoddard-Dayton Model 8-K, 40-45 H. P. Motor—Valve-in-head type, Four Cylinders, cast in pairs, 4¾x5 inches. Transmission, selective sliding gear type, three speeds forward and reverse. Price, \$2,500 f. o. b. Dayton. Extras: Magneto, \$200; Top, \$75.

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